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ABSTRACT

With a view to making literacy an integral part of the economic and social development program of Mali, the study represents the third project of the Experimental World Literacy Program which began with functional literacy pilot projects in Tanzania and Iran. A critical report of the implementation of the pilot project in Mali, it contains a description of the events, in their actual sequence, and an assessment of what was achieved under the project and of the way in which the activities were planned and executed. An evaluation of the project was undertaken based on three surveys--before, during, and after the project--collecting data in four categories: (1) educational, (2) psychological, (3) socioeconomic, and, most importantly, (4) economic. Significant results of the project were: (1) the establishment of functional literacy centers, (2) the strengthening of Malian functional literacy services, (3) increased popular support of literacy training, (4) evidence that education can be geared to development, and (5) the renewal of cultural life through literacy activities. Of interest to development specialists, educators, and Africanists, the report concludes that functional literacy teaching provides the Malian authorities with a practical method for training the illiterate in rural and urban areas, and so promoting the economic, social, and cultural development of the country. (MW)

ED 094242

No. 10

Functional literacy in Mali: training for development

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Functional literacy in Mali: training for development

by Bernard Dumont

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Foreword

This study of functional literacy in Mali is a sequel to two others published in the collection Educational Studies and Documents, which dealt with the functional literacy pilot projects in Tanzania and Iran respectively. These three ventures are part of the Experimental World Literacy Programme, the launching of which was approved by the General Conference at its thirteenth session in November 1964, with a view to making literacy an integral part of the economic and social development programmes of the States concerned.

While the study of the Tanzanian project was basically a journalistic and personal account of activities under way, and that of the Iranian project was essentially a consideration of functional literacy based on one particular experiment, this document is a critical report on the implementation of the pilot project in Mali. It contains both a description of the facts, in their actual sequence, and assessments of what was achieved under the project and of the way in which the activities were planned and executed.

There is probably no one who could have given us such a clear picture of the whole venture as the author has, for from start to finish of the operations Bernard Dumont was in charge of the international team that Unesco placed at the disposal of the Malian authorities to carry out this experiment.

Mr. Dumont, who has an intimate knowledge of Mali, having lived there for several years before the pilot project came into being, is a talented and experienced educator and an exceptionally efficient organizer. What he has to say should be of interest to development specialists, educators and Africanists and to all who feel concerned, for one reason or another, about the problems of the Third World. However, the opinions he expresses are his personal responsibility, and do not necessarily reflect those of Unesco.

We wish to extend our very sincere thanks to all those who have assisted in preparing this monograph and, in particular, Mr. Dumont himself and the leaders and members of the national and international team of the functional literacy pilot project being carried out in Mali.

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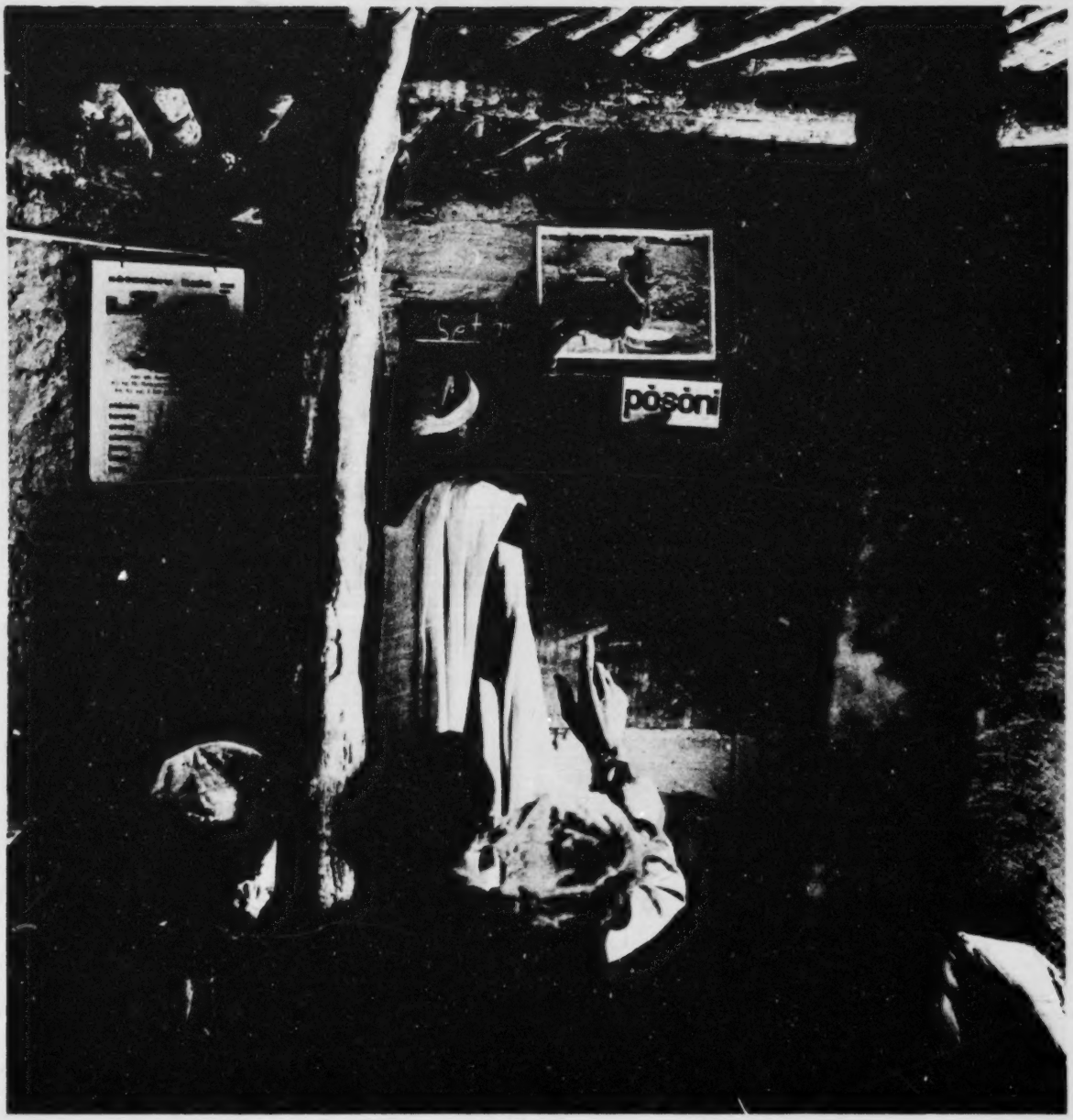

Set
pósóni

Introduction

The adult functional literacy project in Mali is a practical experiment built on, and always very close to, the realities of the country.

Anyone taking an interest in this project should therefore first acquaint himself with those realities. In preference to an elaborate description, the course chosen here has been to reflect them by means of four real-life cases in the form of brief presentations of objects or pictures giving the reader an idea of the atmosphere and helping him to understand the problems met with and the solutions applied.

First case study: picture

It is 8 p.m., and night has fallen on the village of Zambougou (50 km. from Ségou, the chief town of the Fourth Region). All is still and dark, and only the slight hum of all the peaceable activities of going on in every home is audible. One of the houses, however, which is a little larger and rectangular (while the others tend to be circular or square) sheds a brighter light around it and from time to time louder and clearer sounds come from within, somewhat unusual in the calm of this village. It is the Literacy Centre.

Inside the building, brightly lit - and overheated - by a paraffin pressure lamp, 37 peasants sit close together on two rows of earthen benches, the men on one side and the women on the other, facing a small blackboard, one metre square, before which the literacy "organizer" an elder with a white goatee, and his assistant, the agricultural instructor, listen attentively to the discussions in the room.

On the upper part of the blackboard, a 30 x 40 cm. coloured paper poster represents a large white zebu in splendid health. Below the poster there is a line of writing in white chalk:

Sine ye sarimisi belebele soro

A fairly lively discussion, in Bambara, is going on among several cotton-growers seated on the benches. Some think it quite natural to feed and care for the draught oxen so as to keep them fit for work, whereas others consider that these animals can quite well find their own fodder in the bush country and that in any case, that is the business of the Fulani and not of the Bambara.

This discussion follows on from questions put by the instructors about the poster. It represents a scene very familiar to the farmers, but its correct interpretation is the outcome of the group discussion guided by those in charge of the session.

The purpose of this type of session, which those in charge of literacy in Mali call "a recapitulation session", is to encourage discussion and reflection on the practical everyday activities of the peasants and on the improvements proposed to them by the agricultural extension workers concerned with "Operation Cotton". At the same time, these sessions, which teach participants to understand images, serve as a half-way house between the reality experienced by the peasant and the doubly abstract representation of that reality constituted by writing on paper. The reading, writing and arithmetic sessions, which are to follow on the next day and thereafter are based on the sentence written on the blackboard as a caption to the picture: "Sine has bought a big draught ox". All the individual documents distributed to pupils at the Literacy Centre teach reading and writing with sentences of this kind beneath illustrations like that of the poster.

Second case study: picture

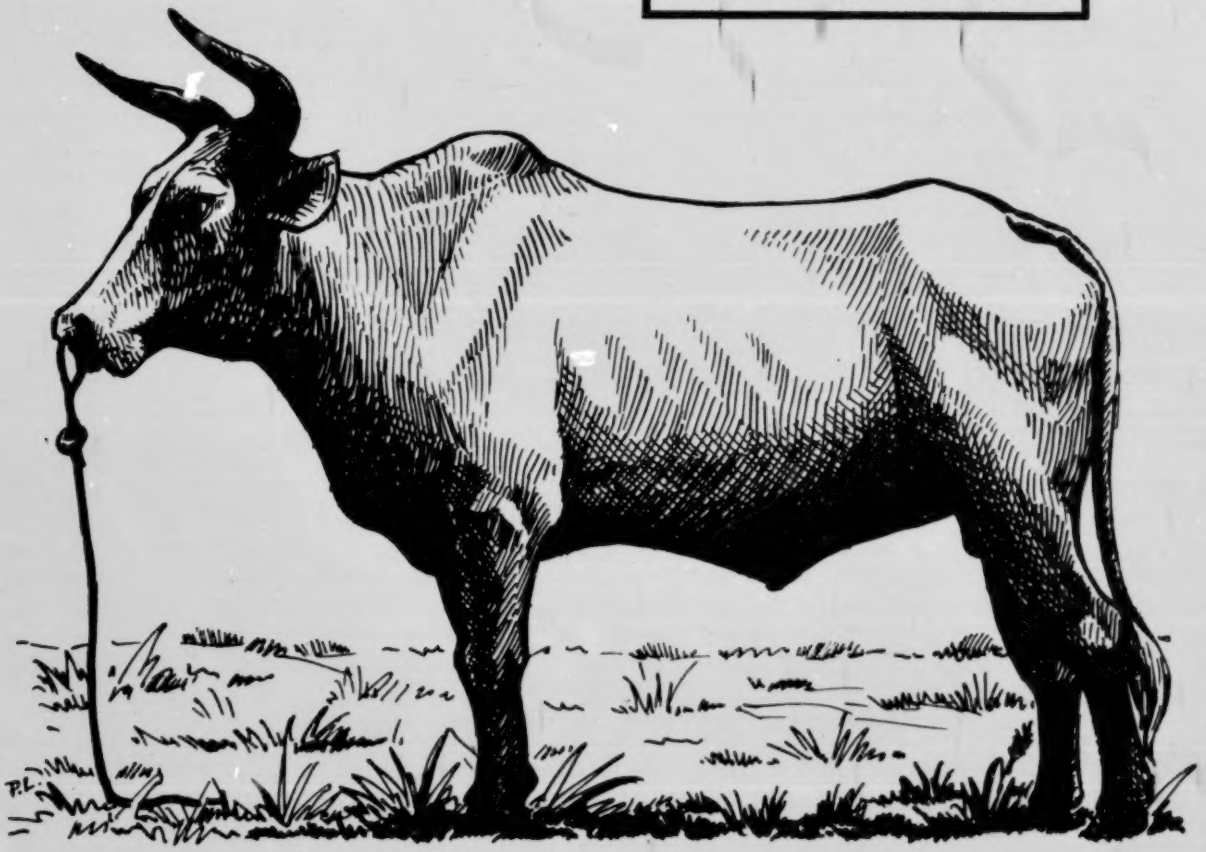
Another literacy group is situated at Golobladji, in the groundnut-growing area of the Kita Circle.(1) This one is in the open air and in broad daylight under a big tree in the centre of the village. Each of the 25 peasants seated on mats has a kind of strip of wood one metre long and graduated in tens from 0 to 100. A piece of cardboard with two slots cut in it can be slid along each ruler. Following the directions of the agricultural instructor, each student moves his piece of cardboard and stops it on one of the graduations of the ruler, which he then

(1) Mali has 42 Circumscriptions, spread over 6 Economic Regions.

. . . Sine has bought a big draught ox . . .

sòrò

belebele



sarimisi

THE WORKING OX CZS No.12 (3)

CARE

Working oxen must be well cared for and well fed. An ox which does not feed well cannot work well.

A working ox has less time to search for its food.

Good grazing must be kept for working oxen, and grass should be brought to the cattle-shed.

They also need extra food such as harvest left-overs, groundnut foliage, etc., during periods of heavy work like ploughing. An ox working five hours a day should be given a kilo and a half of crushed grain in addition to grass.

A well-fed ox works better and does not become thin. It can be used for a long time and can be sold for a good price.

AGE

Animals which are too old should not be chosen. They are stubborn and have a shorter working life.

Animals which are too young should not be chosen. They are not strong enough. They have not finished growing, and if they work, they do not grow any more. To work properly, an ox should be four years old.

At this age, the animal is strong enough to work, and can continue to do so for several years.

CHARACTERISTICS OF A GOOD DRAUGHT OX

Large oxen should be chosen. They should have big bones and strong hocks.

Their bones and muscles should be well developed and they should have strong hooves.

It is possible to tell if an animal will make a good draught ox from the way it walks (it should have a firm, regular step).

(Translated from the original French by the Unesco Secretariat)

9

31

sinè ye sarimisi belebele sòrò

sinè	sarimisi	sòrò
si	sari	sò
s	sa	s
	s	

si - su - sò
sinè - sari - finisiri - saro
sinè ka sari. sinè ye sarimisi belebele sòrò .

holds up to show the result. This is one of the first "occupational arithmetic" sessions of the programme for groundnut growers, the purpose of which is to train participants to read the figures on the beam of the balance, because for years the illiterate peasants had been cheated by unscrupulous dealers over the sale of their crops. In getting to understand the workings of the balance, they realize how worth while it would be for them, in their lives as farmers, to be able to read figures and do written calculations to check those of the buyers.

Third case study: object

In each Literacy Centre a calendar hangs on the wall beside the blackboard. On every page, which can be torn off at the end of the month - or every two months - above or beside the table dividing the days into weeks, there is an illustration with advice in Bambara on the main farming jobs to be done in the corresponding period. This calendar is not the same for villages where cotton is grown as it is for those producing groundnuts; the distribution of the days is of course the same for all, but the illustrations and advice correspond to the particular concerns of each group of farmers.

This kind of calendar has been in existence since 1969. Like literacy teaching itself, it was introduced in order to meet the essential needs of the farmers. What then, of all the measures advocated by the agricultural instructors, is the one that can do most, in the shortest time, to improve the lot of the farmer and ensure that he has steady and abundant yields? In the unanimous opinion of agronomists, it is that of keeping to the recommended dates for sowing and to the rules for the major crop-care operations, such as hoeing and treatment.

The calendars hung on the walls of the Literacy Centres were designed, produced and distributed to help the farmers understand and keep to the dates and intervals recommended by the specialists.

Fourth case study: object

Here we have a hard-bound booklet of eight printed pages consisting mainly of blanks with just a few titles in Bambara at the beginning of the columns or lines. It is the farming "log-book" and was designed and produced following a survey among cotton growers at the start of the project.

Two questions were put to the peasants, who were then illiterate:

What do you keep at home in the way of papers?

What would you like to write if you could?

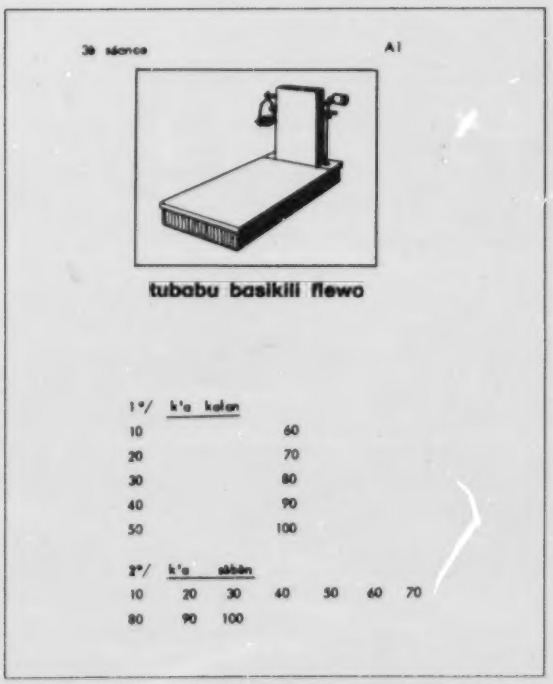
The survey revealed that apart from identity papers (such as birth certificates and equivalent means of identification), the peasants readily keep documents, even if they cannot read them themselves, concerning their crop yields in previous seasons, particularly the slips from the Development Operation registers showing the tonnages harvested and the corresponding payments received.

Their wishes were quite consistent with their habits, for they all wanted, if they could write, to be able to keep information on their farming activity.

The farming "log-book" first produced in 1969, was directly based on the information thus gathered. Its three main vertical divisions, or "main lines" correspond to the principal crops grown by a farmer in the cotton area: cotton, millet and groundnuts. The sub-divisions allow for the possibility that the farmer may have several fields under the same crop. The columns, on every page of the booklet, are devoted to the various characteristics or operations concerning each of the fields: area, sowing date, quantity of manure or fertilizer spread, dates of insecticide treatment, quantity harvested, yield, working costs. The literacy courses teach the people concerned how to fill in this booklet.

It was distributed to farmers taking these courses, thus enabling them to make practical use of their knowledge, and to people living in villages without functional literacy centres. In the latter case, they asked literacy instructors to fill in the pages for them, and that often prompted them to ask for the establishment of a centre in their village.

. . . One of the first "occupational arithmetic" sessions where they are learning to read the figures on the beam of the balance . . .

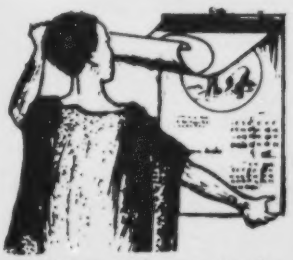


. . . The calendars have been distributed to help the peasants understand and keep to the recommended dates and intervals so that they have steady and abundant yields . . .

avrili kalo
1969 san
n'i bè kòorisi nyuman fè, min bè den koeèbè, i bi taa kòorikolo minè cikèlakòlidenw fè, i n'a fò ninw bè k'a kè co o min.
ntènèn 7 14 21 28
tarata 1 8 15 22 29
araba 2 9 16 23 30
alamisa 3 10 17 24
juma 4 11 18 25
sibiri 5 12 19 26
kari 6 13 20 27

ntènèn	2	9	16	23	
tarata	3	10	17	24	
araba	4	11	18	25	
alamisa	5	12	19	26	
juma	6	13	20	27	
sibiri	7	14	21	28	
kari	1'	8	15	22	

1 kalanjè 51



baara nyèmajòlen : kalandiriye

bala ye kalandiriye kelen san. kalandiriye bè san kalo hakè n'a tile hakè jira. kalo bèe n'a ka baara don bala fè.
k'a ta zanwuye kalo la fo marisi kalo la, o ye tigasan waati ye.
marisi kalo ani awirili kalo kônô, a bè forolabèn baaraw ni solabèn baaraw kè.
mè kalo kônô, bala bè tigasi furakè ni sègèni ye, k'i sigi, ka sanji fôlô makônô.
zuèn kalo tè sa abada k'a sôrô bala ma tila danni na.
zuluye kalo, uti kalo ni sètanburu kalo, bala b'o kè tigaladon na.
nowanburu kalo, bala b'a ka tiga sen, k'a sunsun. n'a jara, a b'a gosi desanburu kalo kônô.
sani o ka se, a bè nakôni bô so kôfè.
forobaara si tè bala bolominè.

. . . The farming "log-book" is based on information gathered from the peasants and the courses teach them how to fill them in . . .

foro	foro kènè tari hakè	bagannògò wotoronyè hakè	danni don
kòòri			
nyò			
tiga			

tubabunògò borè hakè	furakèli buwati hakè						
	1o	2n	3n	4n	5n	6n	7n

16 jate 70

sènèkè liburunin

foro kènè taari hakè	bagannògò wotoro nyè	danni don	tubabunògò bòrè hakè	fura bidòn hakè				
				1	2	3	4	5
1	15	zuèn 15	0	1/2	1/2	1	1	
2	0	zuèn 25	2	1	1	2	2	2

an ka bakari ka sènèkè liburunin lajè :
bakari ye kòoriforo 2 sènè.
i.òoriforo fòlò kèra taari 1 ye. a ye bagannògò wotoro nyè 15 k'o la. a y'a dan zuèn kalo tile 15. a ma tubabunògò k'o la. a y'a furakè sinyè naani, ka pòsòni bidòn 1/2 kè a la sinyè fòlò ani sinyè filanan na, ka bidòn nyè 1 kè a la sinyè sabanan ani naaninan.
a-ka kòoriforo filanan ye taari 2 ye. bagannògò ma k'o la. a danna zuèn kalo tile 25. tubabunògò bòrè 2 kèra o la. pòsòni kèra a la sinyè duuru : bidòn nyè 1 de kèra a la sinyè fòlò ani sinyè filanan na, ka bidòn nyè 2 kè sinyè sabanan, naaninan ani duurunan.

o nyògòn siraw ka cii tabulo la, kalanden kelen kelen ka na a ka kòoriforow cogo sèbèn o siraw kònò.

Chapter 1

Mali and literacy

We cannot speak of Mali and understand its problems without touching on its history, for it was on the territory of the present Republic of Mali that the vast empires of the Middle Ages flourished, and their renown has lived on. The oldest was that of Ghana, roughly contemporary with Charlemagne. It was situated mainly to the north-west of present-day Mali in the area of the Mauritanian border. The second was the one that gave its name to the country, the Empire of Mali, which, in the thirteenth and fourteenth centuries, extended from the Atlantic to what is now Upper Volta and provided much of the gold used by Europe at that time to expand its trade. In the fifteenth and sixteenth centuries it was followed by the Songhai Empire, at Gao, and subsequently by other kingdoms or empires which were of lesser importance but also left their mark on the history of the region, such as the Bambara Kingdom of Segu and the Fulani Empire of Macina.

The foreigners, generally Arab travellers, who visited these empires were unanimous in describing them as remarkably well organized, and Kankan Mussa's pilgrimage to Mecca is reputed to have been one of the most splendid of the Islamic world.

All this past is not dead; it is still very much alive in the Mali of today. It remains alive in the hearts of the Malians, who steadfastly maintain that there exists a Malian personality not to be confused with that of the neighbouring countries and peoples. It is still alive in the social structure and in certain institutions. To mention but one of the best known, there is the ever-present rôle in society of the griots, the depositaries of tradition. For generations, since the time of the great Emperors of Mali, they have been the collective memory of the country and there are still villages today where all the inhabitants have, for seven hundred years, been faithfully recounting from father to son the great deeds of the Sundiata and the Kankan Mussa at the zenith of the Empire of Mali.

For modern Mali the heritage of this brilliant past is a firm social structure resting on the family and the village. It is also reflected in a very extensive participation in public affairs, unmistakable vitality and much pride at being linked to the virtues which accounted for the country's former greatness.

In 1960 Mali became independent once more and one of the chief concerns of its first rulers was to restore to their country a rôle in international affairs and its erstwhile prestige. Economic development is as essential as education to the attainment of such an ambition, which is why the Government simultaneously launched a five-year plan and increased the number of schools. But it also made point of doing something for adults over the school age.

It is a fact that Mali's needs in regard to education were in 1960 - and still are - considerable, for the proportion of adult illiterates can be estimated at 90 per cent; the 10 per cent who have been to school are mainly town dwellers. As a result, the country areas have very few possibilities of using the written word to communicate with the outside world.

Despite the considerable sacrifices made by the country over the past ten years for the sake of education, only one child in five can receive an elementary education. The other four will reach the age of ten without having had any such opportunity. Yet schooling is still just about unanimously regarded as the sole means of achieving social advancement (which until very recently was a possibility not thought of in terms of the peasantry).

Although the number of classes - and consequently of pupils - has more than trebled in the last ten years, the proportion of children enrolled is still low on account of the population growth rate, which increases the country's population each year by over 100,000. Studies on this subject under the Project show that the age groups between 15 and 35 years are joined annually by some 50,000 additional illiterates. (1) Simply in order to stabilize the

(1) This figure is obtained by subtracting from the number of male and female inhabitants reaching the age of 15 each year, the total number of those who reach 35 years of age, those who have had at least four years' schooling and those who die between 15 and 35.

number of illiterates in this age group, (which is particularly active in all branches of production), 1,200 new classes would have to be started annually, or three or four every day. Figures like this give an idea of the scale of the effort needed.

Since 1960, therefore, there has been a literacy service in Mali which, despite extremely scant material and financial resources, managed to open over 600 centres by 1965 throughout the country. This literacy work drew heavily on the school model, that is, it took the same form in every part of the country, the official language - French - was used and instruction was usually provided in schools in the evening after the normal classes. Basically, it offset school drop-out by enabling young people who had been removed from the schools, after too many repeated years or for other reasons, to qualify for the same paid employment as that to which the schools gave access.

Economic and social development along modern technological lines, as opted for by Mali, obviously means that at least some of the workers must be able to make proper use of the techniques and equipment involved in such development, and must accordingly be trained for the purpose. Therefore, while that old-style literacy campaign was under way, the Malian authorities endeavoured to link it still more closely to the general economic development effort they were promoting. In international meetings, the Malian delegations have thus always been among the foremost advocates of education linked to economic development, in other words, of functional literacy. Mali was represented at the Teheran Congress in September 1965,(1) and, when the new formula was adopted, it happened to be one of the first countries to ask to take part in the large-scale experiment promoted by the United Nations - the Experimental World Literacy Programme (EWLP).

As a matter of fact, it was because of its previous experience in literacy work, its basic attitude to the question and its determination to make its adult producers literate, that Mali was chosen as one of the first three countries (along with Algeria and Iran) to test the principles of functional, selective and intensive literacy work. In early 1966, just before the implementation of the pilot project, the structure of literacy services in Mali was as follows: a National Centre, in Bamako, comprising the Directorate of the National Service and a modicum of equipment needed to produce literacy materials (photographs, films, reproduction service); and, for those parts of the country with literacy centres in operation, ten Regional Directorates supervising, each within its particular scope, some sixty literacy centres throughout the Republic of Mali.

As defined in the Plan of Operations signed in February 1967, the aims of the project were to strengthen the National Centre for the production and distribution of literacy material and to provide functional literacy training for the 100,000 farmers and 10,000 workers in State-owned industries and concerns, while seeking the best methods of making a positive and lasting contribution to development and of improving the living conditions of the farmers and workers and their families. The latter were to be chosen in branches with a decisive part to play in improving the country's economic situation.

It was agreed from the outset that the project would be national - Mali making the major contribution to its financing (some three million dollars at the 1966 exchange rate) - and would be managed by the Malian authorities. Assistance from Unesco and the United Nations, valued at one million dollars, was to be a complement fitting into the Malian arrangements, to help achieve the project's objectives.

There have accordingly never been two separate organizations in Mali dealing respectively with the pilot project and the national campaign. A single National Literacy Centre (subsequently Service), with joint staff, headed by a single director, and one and the same Production Centre with a single network of Regional Directorates, were responsible for all literacy activities coming under the jurisdiction of the Government of Mali.

The year 1966 witnessed the start of work preparatory to the implementation of the Project, and particularly the linguistic work, on the progress of which the quality and scope of all the other undertakings depended.

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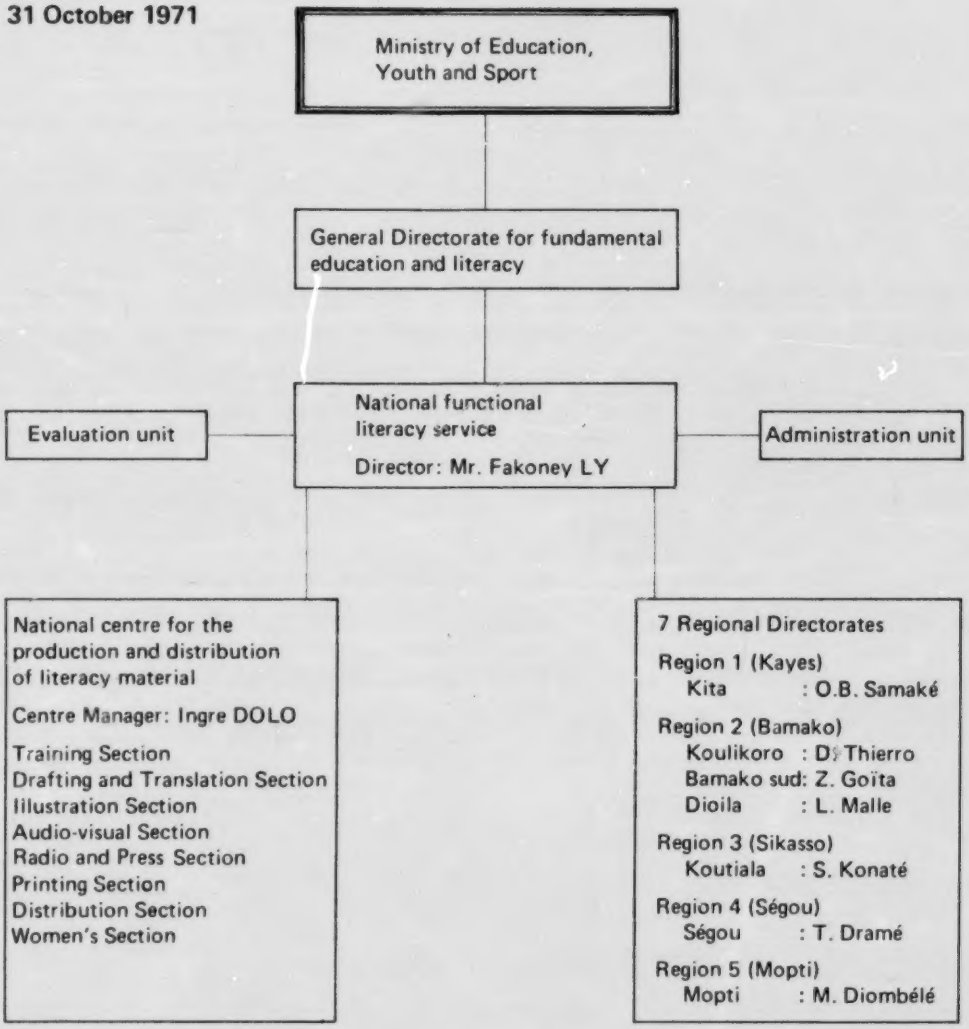
(1) World Congress of Ministers of Education on the Eradication of Illiteracy.

. . . There have never been two separate organizations in Mali dealing respectively with the pilot project and the national campaign, but a single national centre with a common staff . . .

ORGANIGRAM OF THE FUNCTIONAL LITERACY SERVICE

31 October 1971



Chapter 2

The linguistic infrastructure of functional literacy

As we have seen, literacy instruction in Mali, like school education, was previously in French. Recourse to the official language may be readily understood when the problem is to make up for the inadequacies of a teaching system using French, and when adults living in towns have to be prepared for employment in cirlces where French is the working language and the medium of communication.

But the problem is quite different when the people to be taught to read and write are peasants, or farmers.

The old literacy campaign was theoretically designed both for town-dwellers and for farmers; but, in fact, it should be remembered that in the villages there are extremely few people who can speak French and even fewer who can read and write it. Therefore anyone wishing to follow the evening course generally had to travel fairly far from his village. Moreover, what he learned from the course could not easily be put to any use in an essentially rural setting with no means of written communication, where French is of practically no use since there is no one with whom to speak it. The need was seen therefore for the provision of functional literacy courses for farmers in the languages naturally spoken by adults, so as to convey technical knowledge to them more easily and facilitate instruction in reading and writing. The roundabout method of learning a foreign language, adding its own difficulties to that of understanding consonants, vowels and their combinations, could thus be avoided. Consideration was accordingly given to using first the various national mother tongues as media for the transmission of knowledge and for instruction in reading, writing and arithmetic, and only then to going on (when and how would be determined by research at this stage)to learn the country's official language.

Even before the Pilot Project was launched, and in order to facilitate its preparation, the Government of Mali had decided to limit the number of languages selected for functional literacy instruction to four. By comparison with other African countries, Mali is favoured in this respect, for relatively few (less than ten) languages are spoken there. The four languages selected are not only the most widespread and representative of quite distinct linguistic families, but, what is more, they are also frequently used as languages of communication by the other linguistic groups. These languages are: Mande, including its dialectal variants Bambara, Malinke and Diula, which are spoken throughout Southern Mali by about half the country's population and used by many Senufo and Bobo, even beyond the national boundaries; Fulani, which is the language of the cattle raisers, scattered throughout the Sahel part of the country or settled in other areas inhabited by farmers and is also understood by many Dogon; and Songhai and Tamashek, which are spoken in the Sixth Region, that is, in the Sahara region of the borders of Niger and Algeria.

It was at the request of Mali and a number of other West African countries that a conference was held in Bamako in February-March 1966 - in which Unesco played an important part - for the purpose of jointly assessing the studies required for transcription of national languages.

For, at that time, there were very few West African languages with an official transcription system. Some countries were already using their national language for fundamental education. But this was the case neither in Mali nor in the other thirteen countries of former French West Africa and French Equatorial Africa, where the only medium of instruction was French.

There were, of course, a few publications recounting proverbs, customs, or sometimes legends, in each of those languages as well as grammar books or vocabularies, but they were the work of "amateurs" - missionaries, interpreters or administrators - each using the transcription system that he believed to be the best, on the basis of his language of origin and any influences under which he had come. Since account had not been taken of all aspects of the problem, none of those systems had been generally accepted. Basically, the problem was not simply to transcribe such and such a language, but rather to bring closer into line and

if possible, unify the transcription systems of the various West African languages.

Now, the problem is complicated by the fact that in each of these countries there are several languages; it seemed reasonable to seek for a single transcription system with a common alphabet enabling all the languages of the country to be transcribed. Thus when a Bambara peasant is taught to read and write in Bambara and knows the necessary characters to write his language, he can also use those same characters to write in Fulani, if he knows Fulani or another of the languages spoken in the country. This target is already ambitious enough in the context of a single country where several languages are spoken, each with its own phonemes sometimes differing from those of the neighbouring languages and needing to be represented by special characters. The problem is further complicated by the fact that most of these languages are spoken in more than one country. For instance, all the languages of Mali are spoken in the neighbouring countries as well. Languages of the Mande group are also understood in Senegal, Gambia, Guinea, Sierra Leone, Liberia, Ivory Coast and Upper Volta. Fulani is spoken by more or less sizeable minorities throughout West Africa from the Atlantic coast to Chad. Songhai is spoken in Niger as well as in Mali (though in Niger it is generally known as Zerma), and Tamashek, the language of the Tuareg nomads of the Sahara, in Algeria and Niger by some 400,000 people, and in Mali by over 200,000.

It was therefore necessary, in order to build up a coherent whole, that all the countries should agree to adopt the same transcription system. This was particularly important from the point of view of keeping down the cost of producing written material, for it is obviously much less expensive to print a text in a language with a single transcription system and a single alphabet than to have to repeat the operation, for the same language, with different alphabets.

Such was the objective of the Bamako Conference, which was to be in two stages. The initial stage included the formation of a separate commission for each of the six[1] languages represented making an inventory of all the phonemes occurring in each of the languages and devising an alphabet rendering all the phonemes of one and the same language. The commissions responsible for each of the languages (or of each group of languages) included representatives of the various countries concerned. The second stage consisted of comparing the alphabets selected for these various languages, so as to check that in all six the same sounds were represented by the same signs.

Another common concern of the many participants in the Conference was to keep as closely as possible to the characters already used on typewriters and in printing presses so as to avoid the time-consuming and expensive operation of making new matrices and characters before being able to bring out printed material in African languages.

The first part of the work was completed and the reports of the commissions clearly indicate the choices for the transcription of each language. On the other hand, the second part, which was very ambitious - no doubt too much so in view of the time at the Conference's disposal - did not culminate in standardized alphabets for all the languages of West Africa; it simply led to recommendations some of which are at times a little vague.

Therefore, after the conclusion of the Bamako Conference, Mali had to devote a great deal of effort, throughout 1966 and in early 1967, to finalizing the recommendations and elaborating a coherent system of transcription.

To that end, a Consultative Commission was set up under the authority of the Ministry of Education and organized by the Literacy Service. It consisted of four technical committees corresponding to the four languages in which literacy work was to be carried out and bringing together literacy instructors, linguists and other Malians known to be thoroughly familiar with the country's languages.

In early 1967, the Commission reached agreement on a transcription system, an alphabet of forty-five letters representing the forty-five sounds recorded in these languages. The alphabet was based on the Latin alphabet.[2] The forty-five sounds do not of course all exist in each of the four languages, and the forty-five letters are therefore not all necessary for each language. Sixteen characters are common to the four languages, naturally with the same value in each case. Others are common only to two or three of the languages spoken in Mali, and some are peculiar to one of them. Each language uses some thirty of the characters. In May 1967 the Mali Council of Ministers approved the work done by the Commission by passing a decree conferring official status on the system of transcription for the four languages selected for functional literacy teaching.

Work has continued on the basis of that decree, with priority for the Mande group whose three dialects, Bambara, Malinke and Diula, are the languages of the cotton and rice growers. The Mali Government had already given priority to this group in the form of functional literacy courses for the farmers.

Two studies essential to the use of Bambara, on spelling and vocabulary, were thus completed in 1967 and 1968.

A simple definition of spelling rules was a necessity, chiefly on account of the doubling of nasals in derived words and the splitting up of composed words (for Bambara is a language which can

(1) Mande group, Fulani, Songhai-Zerma, Tamashek, Hausa and Kanuri.

(2) The signs of this alphabet are Latin characters, used with the same value as in French (21) or as in another European language (4), or double letters (8), or letters differentiated by a dot or an accent sign (6), or special characters (6).

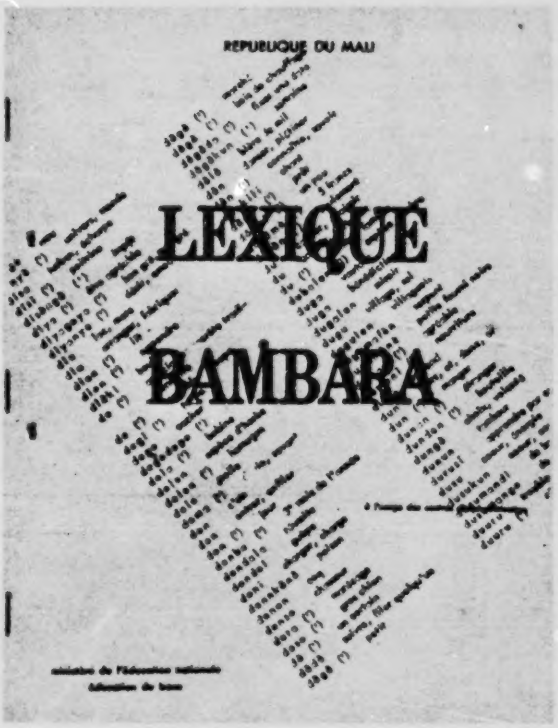
make extremely long words and they have to be split up to make a text readable).

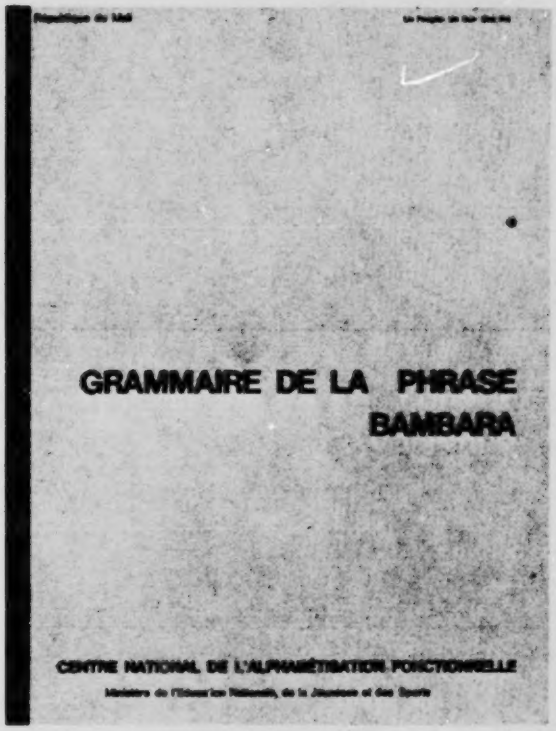
The vocabulary study was worth while on two counts: first, it was a bid for acceptance of the spellings adopted, with a number of examples of the transcription of words to which the spelling rules were not easily applicable; the other purpose was at the same time, to give all the regions in which Mande is spoken a common basic vocabulary. For Mande is like all other languages, especially when they are unwritten, in that in each region and each part of the area in which Mande is spoken it has its own accent and is characterized by the use of certain words borrowed from neighbouring peoples and unknown in the rest of the country. Before writing and publishing books for fairly wide distribution, it must be ensured that they will be understood by everyone. The purpose of the vocabulary was therefore to provide a common stock of words usable throughout the Mande-speaking area. The vocabulary was prepared by a special commission consisting of representatives of all the regions in which this language is spoken, and of all the Diula, Malinke and Bambara accents. The Commission reviewed all of the words in existing dictionaries, singling out those that were understood by all Mande speakers and rejecting any that appeared to be regionalisms. By early 1968 a vocabulary had been compiled of some 2, 500 words which were sure to be understood by all Bambaras and Malinkes in Mali.

Other smaller-scale but equally important tasks were accomplished by the Commission. One of these was to select words to express Bambara grammatical terms and the notions of arithmetic.

We know, in particular, that to teach arithmetic it is important to have a precise vocabulary, since mathematics does not brook uncertainty; so this vocabulary had to be selected and in some cases invented, to make arithmetic teaching feasible.

All this work was completed in the early years of the project, that is, between 1966 and 1968, because it was essential to the use of Bambara for literacy instruction. But it could not be left at that, and the work was subsequently carried on; first, for the other languages, particularly Fulani, the use of which was seen as a necessity once the extension of functional literacy reached the Mopti region; and also for Bambara itself, because the vocabulary, the grammatical terms and the necessary vocabulary for arithmetic are no longer sufficient for large-scale diffusion of the language. Accordingly 1971 saw the adoption of an initial version, in French, of a very simple "Grammaire de la phrase Bambara" (Grammar of the Bambara sentence) intended for literacy instructors. In the near future it will be translated into Bambara





so that it can be used by new literates wishing to know the workings of their language and to become instructors in their turn. In 1972 the first literacy materials in Fulani were brought out for immediate use by the rice-growers of Mopti.

All this work is more pragmatic than scientific. It will certainly need to be carried further and continued. But as it is, it has nevertheless had the merit of playing a decisive part in triggering off a broad surge of interest in one of the ancestral treasures of this part of Africa - its language and its oral literature. It has made a big contribution to the success of functional literacy and it has given the peasantry fresh opportunities of gaining access both to the cultural values of its own civilization and to means of communicating widely with the outside world.

(The following pages 23 to 27 have been translated from the original French by the Unesco Secretariat)

. . . The decree officially establishing the alphabet of 45 characters representing the 45 sounds needed to transcribe Mali's four principal languages . . .

PRESIDENTIAL DEPARTMENT
GENERAL SECRETARIAT

REPUBLIC OF MALI
One People - One Aim - One Faith

DECREE No. 85 /PG establishing the alphabet for the transcription of the national languages

The President of the Government of the Republic of Mali, in the Council of Ministers

Considering the Law proclaiming the establishment of the Republic of Mali,
Considering the Constitution of 22 September 1960,
Considering Law No. 6 274/AN-RM of 17 September 1962,
Considering the general resolution adopted at the First Seminar on National Education, concerning the study and transcription of the main national languages and literacy work in these languages,
Considering the Final Report of the meeting of a panel of experts for the standardization of the alphabets of the national languages of West Africa, held by Unesco in Bamako from 28 February to 5 March 1966 and the report of the Malian delegation to that meeting.

On the Report of the Minister of Education.

DECREES AS FOLLOWS

Article 1:

The alphabet appearing in table I shall be adopted for the transcription of the Mande, Fulani, Tamashek and Songhai national languages.

Article 2:

The phonetic value of the letters of this alphabet shall be as given in table II.

Article 3:

The alphabetical order of all these languages shall be the order given in the table referred to in Article 1.

ALPHABET OF THE NATIONAL LANGUAGES OF MALI

Table I

	Mande (29)	Fulani (32)	Tamashek (31)	Songhai (28)
1		ɔ		
2	a	a	a	a
3	b	b	b	b
4		ɓ		
5	d	d	d	d
6			ʼd	
7		ɗ		
8	j	j	j	j
9	e	e	e	e
10	è			
11			ə	
12	f	f	f	f
13	g	g	g	g
14			gh	
15	h	h	h	h
16	i	i	i	i
17	k	k	k	k
18	kh		kh	
19	l	l	l	l
20			ʼl	
21	m	m	m	m

	Mande	Fulani	Tamashek	Songhai	*Table I*
22		mb		mb	
23	n	n	n	n	
24		nd		nd	
25		nj			
26		ng		ng	
27	ny	ny		ny	
28	ŋ	ŋ		ŋ	
29	o	o	o	o	
30	ȯ				
31	p	p			
32			q		
33	r	r	r	r	
34	s	s	s	s	
35			ʼs		
36	sh		sh	sh	
37	t	t	t	t	
38			ʼt		
39	c	c		c	
40	u	u	u	u	
41	w	w	w	w	
42	y	y	y	y	
43		y̰			
44	z		z	z	
45			ʼz		

Table II

A. CONSONANTS AND SEMI-VOWELS

	Labials	Dentals	Palatals	Velars	Post-velars	Glottals
Occlusives unvoiced	p	t	c	k	q	ɔ
Emphatic unvoiced		ʻt				
Voiced	b	d	j	g		
Emphatic voiced		ʻd				
Laryngealized	ɓ	ɗ	y‘			
Pre-nasalized voiced	mb	nd	nj	ng		
Fricatives unvoiced	f	s	sh	kh		h
Emphatic unvoiced		ʻs				
Voiced		z		gh		
Emphatic voiced		ʻz				
Nasals	m	n	ny	ŋ		
Laterals		l				
Emphatic		ʻl				
Trilled		r				
Semi-vowels			y	w		

B. VOWELS

Short				Long			
i			u	ii			uu
e	ə	o					
è	ò			ee		oo	
	a				aa		

Article 4:

The length of vowels or consonants shall be indicated by doubling the letter concerned.

Article 5:

In languages with nasal vowels, these sounds shall be transcribed by the nasal consonant n.

Article 6:

In languages with tones, only the high tone shall be indicated - by the acute accent (´) - and only when necessary to avoid confusion. On the open vowels è and ò, it shall be indicated by the circumflex accent: ê and ô.

Article 7:

Special instructions as to spelling rules for each of the languages will be issued by the Minister of Education.

Article 8:

The Minister of Education shall be responsible for the application of this Decree, which will be published in the Official Journal of the Republic of Mali.

Koulouba, 26 May 1967

The Minister of Education

S. TALL

pp. The President of the Government

J. M'BONE

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I.G.A.	3		

Chapter 3

Other preparations and first attempts

The launching of functional literacy on the sort of scale required in Mali implied a good many other preparations than those to do with linguistics. The plan of operations for the project, signed in February 1967, allowed one year, the rest of 1967, for the preparations. They in fact lasted right into 1969, that is, two-and-a-half years. The reason the preparatory period went on so much longer was that the difficulties proved fargreater than expected. The obstacles and problems foreseen were mainly material ones, like mustering resources, organizing teams, getting material delivered, and so forth. In fact, there were obstacles, not evident at first sight and which turned out to be most persistent throughout that period, of a conceptual or psychological nature.

The material constraints themselves were, still more so than had been supposed, highly inimical to the launching of such a large-scale experiment. It must be remembered that Mali is a vast country (1,200,000 square kilometres, that is, larger than Spain and France put together) with a climate marked by a long dry season. Mali has no hinterland or maritime outlets, and the only access is via neighbouring countries and 1,200 kilometres of rail or roads which are sometimes very bad. The five million inhabitants, ninety per cent of whom are engaged in agriculture or livestock farming for their own subsistence, generally still using inefficient traditional methods, yield an estimated gross domestic product of only 150,000 million Mali francs (some 1,500 million French francs or $270 million), which works out at under 300 French francs or $55 a head. Accordingly, the budget of the State and the six Regions is under 25,000 million Mali francs (250 million French francs or $45 million), of which only 6,000 million can be devoted to education. Since this situation remained largely unchanged during the operational phase of the project, it is not surprising that Mali was able to provide only a part of the resources which it had, in 1965, contemplated devoting to it. The funds for running the Literacy Service were increased (regularly for the staff, who account for about one per cent of the total education budget, and, in 1971, the amount spent annually on materials rose from 3 to 4 million, or some 0.07 per cent of the total education budget), but this allocation is still infinitely small in view of the innovatory and experimental character of the project and the big rôle it has gradually assumed in the country's economic and cultural life. At the same time, the Malian staff who were to add to the strength of the initial nucleus were supplied to the Literacy Service much more slowly than provided for in the Plan of Operations and in small staggered batches, so that training and selection of the staff had to be spread out over the entire duration of the project, and were not always effected under ideal conditions.

The expected volume of international aid was attained and even exceeded, but in some cases it took longer than planned to materialize. Seven experts out of nine were indeed already at their posts in January 1967, but those who arrived only in June or October of that year were the very experts in agricultural vocational training and in the manufacture of literacy materials whose special skills would have been the most valuable in speeding up the preparations. The main shortage, however, was that of equipment and this was due to delays in delivery (by boat, rail and road) and to installation difficulties (it was only in October 1968 that the film, printing and illustration teams were able to use their materials).

But the overriding difficulties, when the preparatory phase had to be extended, were to do with the conception and exact rôle of functional literacy. These difficulties may be divided into two groups: those concerning relations with industrial enterprises or the agricultural development operations and those pertaining to the actual conception of functional instruction.

As regards the conception and application of functional education, it is simple enough to maintain that literacy instruction should be "work-oriented" and "functional, selective and intensive". But when it comes to action and giving practical effect to literacy work combining all these features, we discover that the definitions need clarifying and that the practical side requires very close study.

. . . Mali is a very large country (1,200,000 sq.km.) with no outlets to the sea . . .

It is realized, for instance, that this notion of functionality is somewhat complex. It may mean at least three things:

(a) first, in order to be functional, knowledge must be usable in his everyday activities by the person acquiring it;

(b) secondly, such knowledge should enable anyone to improve his functional performance within his group; and, in the case of pilot projects, the function concerned is production, enabling the adult to keep himself and his family and to improve his living conditions, for these are the deepest and most enduring motivations;

(c) finally, it must be possible to acquire this knowledge in the course of productive activities.

By comparing various conceptions relating to the practical conditions of applying this complex and substantial notion of functionality, we eventually see that the aim of functional literacy instruction is not to teach people to read and write, as the very term "literacy instruction" might be taken to imply; its aim is to provide the producer with better tools. It so happens that these tools must include written communication, that is, the use of writing for calculation and communication. This was recognized in Mali by dint of experimenting but, like everywhere else where conceptions based on different experiments come into contact and combine, realization took some time. At the outset, there was often a tendency to attach more importance to a particular aspect; sometimes it was the reading and writing aspect, out of formal fidelity to the term "literacy instruction", regardless of the fact that the producer is chiefly motivated by knowledge enabling him to provide for himself; sometimes it was the "logical programme" aspect, out of attachment to the classroom tradition, forgetting that the logical faculty of the adult producer has already been formed and does not necessarily correspond to that of the schoolchild; and sometimes it was the vocational training aspect simply for the sake of innovation, overlooking the entire social context of the producer.

It was only after months - and indeed years - of work, thinking and discussion that the notion of genuine functionality emerged. To confirm this we need only to examine and compare two of the practical examples given in the Introduction.

The cotton growers, who are seated in front of the "mental recapitulation" poster representing a large draught ox, will learn that oxen must be fed and cared for if they are to keep up their strength and be able to do the work expected of them. Then, once they have been interested by that notion, which is essential to their economic advancement, they will readily agree to learn how to write "a large draught ox" or "to buy a large draught ox". In this material there is an observed functional slant because the words and sentences used in reading and writing instruction embody notions introducing a degree of technical progress for the producers, and because the latter take an interest in those notions since they concur with their fundamental motivations. But functional literacy has not yet been achieved, because of course you can look after an ox, or even buy one, without knowing how to write, and real functional literacy presupposes that what is taught is usable and used to do technical work better and to promote occupational improvement or innovation - in the form of a solution to the production problem, which is behind the whole process.

The instructions for looking after draught oxen under the "cotton" programme were drawn up in 1968 when the notions were not yet entirely clear or, to put it more accurately, had not yet been clearly applied.

On the other hand, the groundnut producers' programme, the material for which was prepared a year later, is truly functional. The producers are taught to use the balance, not only because it interests them keenly but also because at the market, that very day or the next, they will be able to use their knowledge to check that the dealer buying their produce does not cheat them over the quantity or price of the goods purchased. That is an instance of real functionality where the ability to read and write figures means that a proper check can be kept on weighing operations when items are marketed.

Thus all the material produced in Mali bears the imprint of the evolution that has taken place in the collective consciousness of the project of the need to achieve an ever stricter and more rigorous application of functionality. It can thus be seen that the long preparatory phase was not a waste of time, since it permitted a gradual move towards true functionality in the instructional programmes and materials.

Although the most symptomatic, the functional aspect was not alone in demanding time and effort; the selective and intensive aspects also required a great deal of thought and many attempts to put them into practice. Selectivity involves giving priority to those workers who have the greatest potential contribution to make to the country's general economic development. This choice is, in the long run, the most beneficial for all producers, taken as a body, since the scarce resources initially available, if used on behalf of producers selected according to that criterion, will yield a product usable by other producers which is greater than that which would be obtained by using the same resources for producers on a non-selective basis.

It was fairly easy to designate categories of workers in broad outline since the Ministry of Planning had earmarked priority sectors of the economy for the functional training effort. But at the enterprise or operation level, it becomes harder to make a choice. Of the five million or so inhabitants of Mali, there are over eight hundred thousand in areas where cotton can be grown. The scarce resources then available and the need to begin experimentation on a small scale made it

inevitable to disappoint many of those who were hoping to be taught to read and write. The choice of some rather than others takes account of economic factors but also, of course, of other considerations. The selective principle, too, is simple to imagine but awkward to apply.

The intensive aspect implies the concentration of several information media to convey to the producer sufficiently thorough and coherent knowledge to enable him to attain a standard at which he can maintain and develop it in his habitual surroundings, without any likelihood of his relapsing into illiteracy. The latter requirement has not yet been defined experimentally under the Mali Project, and we cannot say what standard of knowledge is sufficient. As to the former requirement, it was only in 1970 that facilities started being used in combination. That was the year when functional literacy work proper (functional literacy centres where organizers from the same social background applied an occupational training and "intellectualization" programme in two phases of twenty to thirty-eight sequences each) was supplemented by the other programmes - radio broadcasts, tours with audio-visual aids, and travelling exhibitions - to build up on certain basic instruction given in the courses.

Since it took so long and was so hard to reach a clear definition and, above all, effective application of the principles of functional literacy with the Project team itself, it is understandable that these ideas took some getting through to people who were not originally very closely concerned with literacy or training, namely those in charge of the Development Operations or the State enterprises and companies. And in fact there was often a kind of misunderstanding from the outset. When a production manager is told of functional literacy, he takes in the word "literacy" but not the word "functional". This can be readily explained by the fact that initially the Project team, for want of any practical application, found it hard to give details and practical explanations regarding the actual content of functionality.

This was illustrated by the team's collaboration with Operation Cotton, which was the first of its kind in agriculture. Operation Cotton was launched well before functional literacy and, with the technical assistance of CFDT,[1] which had amassed a great deal of experience in that domain (and not only in Mali), it had succeeded, as early as 1967, in increasing production considerably. However, most engineers and technicians were not convinced that literacy instruction could help improve the peasants' working and living conditions. They were even inclined to think that, like schooling for children, literacy instruction would tempt adults to go and seek paid employment in the towns. As a result, there was scarcely more than a state of coexistence between Operation Cotton and the Literacy Project. Those in charge of Operation Cotton did consent to communicate their extension programme to the National Centre and to let literacy centres be established in certain villages of cotton growers, but they came out against letting the "basic sector leaders" (instructors responsible for extension work in a group of six to nine villages) act as literacy instructors. And so, since Operation Cotton, whose personnel were in the best position to know the production problems, had not called for specific programmes, it is not surprising that the literacy material intended for the farmers was not always truly functional.

Another type of misunderstanding arose regarding literacy instruction for workers of EDM[2] which produces and distributes electricity and water in Mali's ten largest towns. In this case, there was perfect understanding from the outset between the National Literacy Centre and EDM, and instruction was quickly made functional. But it was functional in a rather special way owing to the company's exceptional position. EDM was practically the only enterprise in Mali to have a real vocational training centre for its own employees. EDM workers can be admitted to the centre which gives them training for more skilled and better paid work. When the Pilot Project was launched, several batches of the company's employees had done courses at the training centre. The people concerned were all those previously knowing how to read, write and count, and the centre was unlikely to be able to recruit any more pupils from within the enterprise since all the workers who had not yet taken courses had too little academic knowledge to be able to derive any benefit from the instruction. Functional literacy therefore came on the scene just at the right moment to meet a specific requirement of the enterprise and its workers, that is, to teach them to read and write so that they could qualify for the training courses given by the EDM centre. The functional character of this literacy instruction was obviously not in keeping with the definition given above. It was perfectly possible to make do with a mere vocational overtone without gearing the programme to the problems encountered and the solutions able to be used on a day-to-day basis by the workers, since it was only on completion of his studies at the training centre that the worker might be faced with new tasks. It was a very good thing that literacy instruction should step in like this at EDM, but the misunderstanding - which was not at all between the management of the enterprise and those responsible for literacy instruction - lay in the fact that this approach to literacy work, corresponding to an exceptional situation, could not serve as an example for all the other enterprises. It was, so to speak, just a slightly improved form of traditional literacy instruction, playing a part comparable to that of fundamental education, that is, preparation for formal studies of a higher standard.

(1) CFDT: Compagnie française pour le développement des fibres textiles.

(2) Energie du Mali (Mali power company).

On the other hand as the initial functional literacy activities became known in the country, the interest taken by those in charge of the Development Operations or the enterprises was increasingly based on the practical results that such literacy teaching was capable of obtaining and, consequently, their demands grew more and more precise and led to even closer collaboration between the Operations and the Literacy Project. The most telling example was that of Operation Groundnuts which, having neither the age nor the already long record of success of Operation Cotton, found itself in a somewhat awkward situation in regard to marketing.

The aim of Operation Groundnuts was to overcome the difficulties arising from the peasants' distrust of its marketing agents. Marketing was formerly conducted through private tradesmen who were not always very honest in their dealings with the peasants. The latter had therefore maintained a firmly rooted - and perfectly understandable - habit of distrusting the commercial transactions that are the culmination of their entire year's work. Consequently those in charge of Operation Groundnuts thought that, to remove that distrust of their agents on the part of the peasants, the best course was for the latter to give the producers training which would enable them to check the marketing operations themselves. They accordingly requested the Literacy Project to carry out a training programme based not on progression from the simple to the complex - like school curricula for children - but on the solution of the farmers' most pressing problem, that is the checking of marketing operations, which means that the farmer must be able to read the figures for dozens of kilograms marked on the beams of the balance. Following that introductory course, which had been limited to one month in compliance with the request of the farmers who were anxious to be free for the busiest period on the land, a more ambitious literacy programme for groundnut growers was launched.

In this way, a whole sequence of experiments, misunderstandings, and trials and errors gradually put over the idea that, for a functional literacy attempt to be truly functional, there must be close relations between those responsible for economic development and those in charge of literacy schemes and the former must make what they want quite clear to the latter, in an atmosphere of mutual confidence of course.

One of the highlights of that long and difficult gestation period was the first operational seminar in October 1968, held on the initiative of the specialist in functional literacy teaching sent on mission to Mali by Unesco. Drawing on all the reflection and experience accumulated over two years by the Project team in five different socio-occupational settings, the seminar provided an opportunity for a wide-ranging, lively discussion leading to research and concrete results which enabled all the persons concerned - representing the various sections of the National Literacy Centre and the Development Operations, or enterprises - to compare their ways of thinking fully and put them into practice. The seminar was a landmark, not only in the existence of the project, whose "doctrine" was quite firmly established on that occasion, but even in that of the EWLP. The practice of holding operational seminars has become the best means of remedying stagnant situations, bringing about a vital unity in regard to objectives and methods, and spreading the practice of true functional literacy work.

Despite all the difficulties and uncertainties, some fifty functional literacy centres were opened under the Project, in 1968 and the first half of 1969, in the Kayes, Bamako and Ségou regions. The oldest were those of the State-owned companies (Mali power company, the pottery, the hotel company, the road transport company, and the Baguineda State farm), all in or around Bamako. The most numerous were those of the major agricultural development operations: cotton, (17 centres in the Baroueli and Konobougou districts, near Ségou, and 15 in the rural extension centres, the former civic service, of the same region) and groundnuts (17 centres in the Circumscriptions of Kita and Koulikoro).

By 1969 it was felt that these experiments were amply conclusive and were based on a definite enough method for new openings to be contemplated in sufficient quantity to give an accurate idea of the problems that would be raised by a literacy programme commensurate with the country's needs.

It was consequently agreed to open, between October 1969 and May 1970, an initial series of 500 functional literacy centres in some twenty districts of the First, Second and Fourth Regions of Mali.

Before examining how such a programme is applied in the field, the time has come to introduce, in outline, the Malian method of functional literacy instruction.

Chapter 4

The Malian method

With the 1968 operational seminar, all the preliminary work and experiments culminated in the definition of a working method peculiar to Mali, which began to be applied systematically from 1969 onwards. This working method can be broken down into a certain number of stages.

STAGE ONE : CONCERTED CHOICE

Before a functional literacy programme can be launched, the enterprises or operations requiring assistance must be identified. First a general choice is made between the various branches of activity by the Ministry of Planning which singles out those products and sectors of economic activity that should receive priority assistance owing to their potential rôle in promoting the country's development. Therefore, from the outset, the major agricultural products were selected - those which had in fact been chosen for development operations (rice. cotton, then groundnuts, fisheries and tobacco); similarly State companies or enterprises concerned with the primary, secondary or tertiary sectors were also selected.

STAGE TWO : BASIC AGREEMENT

Within this field, which is still too extensive, selection is based on research done by the Literacy Centre. In certain cases, the Evaluation Unit provided conclusive information: thus priority was given to work with Operation Cotton, owing to the greater benefits accruing to the peasant from the application of modern techniques to this crop. Usually it is the contacts between the management of literacy teaching and that of the Agricultural Operation - or enterprise - which reveal the determining factor, that is, the firmness of purpose shown by the management concerned to implement a functional literacy programme for the farmers. Usually, in the enterprises, the trade unions are invited to take part in such discussions.

The ways and means of implementing functional literacy programmes are explained in detail to the management of the enterprise or of the Development Operation with particular stress laid on the fact that their co-operation will be required at all stages of the process.

In this connexion it is of interest to compare meetings that take place at management level, and those that take place at village level under the heading of "prospection", the purpose of both operations being to obtain the co-operation of the principal persons in charge.

It has become comparatively easy to obtain the co-operation of those in charge of Development Operations: in general, the principle is already accepted before the contacts take place, and the real question at stake is whether it will be confirmed when those in charge realize the magnitude of the task to be accomplished and the commitments to be met. This co-operation is won beforehand, and without difficulty, because in Mali the Development Operations have a much higher goal than a mere increase in the productivity of the crop after which they are named: to raise the yield to a given level is but one stage, an intermediary goal. Of course, this goal coincides with the economic needs of the country, but the ultimate aim, to which the activities undertaken should be geared, is to increase the technical skill of the farmer: the crop - groundnuts or cotton - is but an instrument which, through its ability to bring substantial returns to the peasant, serves to interest him in new techniques that gradually help him to build up his knowledge. Therefore the Government has initiated these operations in the hope that the peasant, while helping to increase the national revenue, will become capable of agreeing to grow new crops - and of doing so successfully - whose cultivation would be useful, both for himself and for the country as a whole, the development of the world market permitting.

To understand fully how this system works, it must be remembered that the Bambara, or the Malian peasant in general, is firmly rooted in a

society which is largely governed by traditional rules, still strictly observed; these include cultivation of the staple crop which supplies the main component of the diet of all the peasants in this area with its Sudanese climate, namely millet. This crop is associated with the entire traditional Malinke or Bambara religion, and the farmer is very attached to these ancestral rules which have proved their worth over the centuries; for it is by observing them that he and his ancestors have succeeded in feeding themselves from the products of the soil, and living and multiplying in their own land, despite its harsh climate. Moreover, all forms of social authority are based on knowledge of these rules, most of which relate to millet growing, and on the ability to enforce them. It is therefore hopeless to try to introduce modern farming methods for traditional crops, such as millet. If tilling with draught animals, carts, ploughs, multipurpose cultivators, selected seeds; fertilizers, insecticides, plant health sprays, etc., are to be introduced, it must be with crops that are new to the peasant; for it is only with such crops, which he knows very little about but from which he can reasonably hope to earn more than he has earned hitherto - and which thus serve also as a training ground - that he can gradually be persuaded to adopt more modern farming methods and increase the yields.

Given the ultimate aim of the Operations - the raising of the peasant's level of technical knowledge by the introduction of increasingly sophisticated modern methods - those responsible for the Operations were usually quick, as soon as functional literacy instruction had a few first achievements to its credit, to see the advantage they could derive from this new type of training, which consists precisely in explaining and going more deeply into the notions enabling the yield and productivity of the crops grown by the local farmers to be increased, as well as supplementing and expanding the work of the agricultural extension services.

In State companies and enterprises, the functional literacy programme calls for co-operation from managements which are somewhat different from those of agricultural Development Operations, since the effects are not seen in the same way. For the producers, in the first place, since the peasants included in Development Operations are the owners of their own land and their own farms, the rôle of the Operation is primarily to advise and help them to adopt new techniques, whose effects they can see immediately and reap the benefits. Whereas for a State company, whether industrial, commercial or even agricultural, the worker is a paid hand subject to a monthly or hourly fixed wage and, for the organization of his work, to the regulations of the enterprise. It is therefore not as easy for him as it is for the farmer to visualize and perceive the beneficial effects of his own training. As for the managers, although they may fairly readily agree to the principle that an increase in the level of knowledge of some of the wage-earners might benefit the company, they are far less willing to accept the idea that they ought to reorganize or redistribute jobs so as to make the most of the new knowledge acquired by the workers. It frequently happens that when an enterprise is in a position to do this, the literate worker is given a small token increase in pay, without any change in his job corresponding to his newly acquired knowledge.

Under these circumstances, therefore, it is more difficult for the teams from the National Literacy Centre to formulate training programmes that may result in an immediate improvement in the workers' output, since the latter always remain in jobs created and designed for illiterates.

It should however be mentioned that even if this idea is more difficult and will take longer to be accepted by companies, it is nevertheless gaining ground and is more readily conceded now, in 1972 than it was in 1967.

STAGE THREE : IDENTIFICATION OF PROBLEMS AND PREPARATION OF PROGRAMMES

After the respective heads of the literacy programme and the enterprise or operation have reached an agreement on the introduction of functional literacy and the division of costs between the two bodies, the programmes can be drawn up. For the Literacy Centre, this phase of work consists first in choosing a team. The team is composed primarily of an illustrator, designer or photographer, responsible for making sketches from life or taking photographs which will illustrate the problem to be tackled; it also includes a specialist in vocational training - agricultural or industrial, depending on circumstances - whose duty it is to establish and maintain contact with the personnel in charge of training in the firm, where such personnel exists, or with those in charge of personnel and with the technicians; the first two members of the team are accompanied by someone to draft texts and reports, and, if possible, an evaluator. These four team members go together to the enterprise or the site of the operation and begin to work with the appointed representative of management, who is either the head of personnel, or the person in charge of training or production, and, in the case of an enterprise, is often assisted by a trade union representative, to study the work premises, the production process and the obstacles which, at each stage of the process, impede any increase in productivity. In agriculture, this process is quite simply the farming calendar, in other words the sequence of all the farming operations to be carried out by the peasants in order to produce a crop, satisfactory in quantity and quality alike; in industry, the process is the chain or chains of production which

(pages 37, 38 and 40 have been translated from the original French by the Unesco Secretariat)

Agricultural Sector

TECHNICAL AND SCIENTIFIC VOCATIONAL TRAINING PROGRAMME

Market Gardening Section, SOCOMA State Farm at Baguineda Tomato Programme

1st Literacy Phase

1. Making the seed-bed
2. Sowing-method-density-date
3. Preparation of organic manure
4. Holes-dimensions-manuring of holes
5. Chemical fertilizers-use
6. First and second planting out
7. Irrigation, water control
8. 1st, 2nd and 3rd hoeings
9. Checking plant health (diseases and insects)
10. Insecticides
11. Use of insecticides - quantity per hectare
12. Bordeaux mixture - composition - instructions for use
13. Organization of tomato picking
14. Selection of tomatoes
15. Counting - weighing of tomatoes (checking the quantity gathered each day by one picker)

2nd Literacy Phase

1. Ploughing
2. Harrowing
3. Levelling
4. Scarification
5. Drilling of irrigation channels
6. Identification of caterpillars and insects
7. Development cycle of insects attacking tomato plants
8. Supply of empty boxes brought by carriers
9. Full boxes placed at the edge of the field, without shelter
10. Transport of full boxes to the factory in rotation
11. Unloading the full boxes at the factory
12. Receipt of empty boxes

. . . To determine the order of priority of the problems to be considered, a questionnaire was drawn up including an item about how far the workers were conscious of lacking training . . .

Document 3

Classify the technical operations listed below according to your need for further training

Code 1. Great need
2. Moderate need
3. Little need

Document 2

Classify the technical operations listed below according to their importance in your work

Code 1. Very important
2. Fairly important
3. Not very important

Document 1

Skill of the Baguineda SOCOMA workers at certain types of agricultural work

Technical skill Code 1. Skilled
2. Fairly skilled
3. Unskilled

start with the raw material and terminate with the finished product. In both cases, the operations follow a logical order, and this sequence of operations is the basis of all the work to be done subsequently.

By studying the different stages in the process, those responsible for the enterprise or the operation provide pointers to the chief difficulties encountered which would seem to be due to inadequate training of the farmers. In this connexion, the actual people concerned, that is the workers, may be consulted in different ways. For example, on the State Farm at Baguinda, when an order of priority for the problems to be considered in the vocational training programme had to be fixed, a questionnaire was drawn up, bearing on all the operations in the farming calendar and designed to disclose how far the workers felt a lack of training in the domain concerned. Thus the final list of operations or problems selected for inclusion in the training programme takes into account at once of the technical importance of solving these problems - an importance explained by the management of the enterprise or the operation - and of the workers' consciousness of their heed for training or information in order to deal with such problems.

Depending on the amount of time feasible or thought desirable to devote to the two phases of the literacy course, the different problems selected are then divided over the two-year period of the literacy programme for the occupation concerned.

Thus the two-year programme of functional literacy instruction for a given group of workers covers the whole range of occupational problems and difficulties which this group meets with in the course of its work and which it can solve thanks to better training. These problems are classified in an order allowing both for the urgency of the solutions to be sought in order to achieve important, conclusive results in increasing prodoctivity and awareness on the part of the producers, namely the workers, of the need for further information to solve these problems. A different programme is prepared for each socio-vocational group, and each of these programmes has its own particular material.

STAGE FOUR : DRAFTING OF DOCUMENTS

The planning and production of this material is carried out by the National Literacy Centre and, more particularly, by the Training and Drafting Sections. The Training Section consists of specialists in vocational training in agriculture and industry. They draw up the technical cards used in vocational training.

The whole programme is divided into two phases, each corresponding, theoretically, to one year's instruction. Each of these phases is then subdivided into sequences, of which the number varies from twenty (for groundnuts) to thirty-eight (for the Société Energie du Mali, Electricity) Branch). All the sequences have the same structure: in principle, one sequence is intended to be taught in the course of one week, and usually corresponds to one of the vocational problems pinpointed in the programme formulation phase. But sometimes specially complex problems require several weeks of study and so are treated in several sequences.

The rôle of the vocational training specialist in the National Literacy Centre is to prepare, with the help of those responsible for the enterprise or the development operation, the technical content of this instruction. Vocational training is divided into two stages: first stage, practical work in the field or on the job; second stage, recapitulation. Practical training in the field or on-the-job in a firm is, in principle, the task of those responsible for training in the firm or agricultural operation. For example, for a cotton grower, one of the most important skills taught is sowing in drills; this consists in placing the seeds in the soil in parallel lines, at a certain distance that will give optimal plant density, and when the plants are full grown, leave room for ox-drawn farm machinery. In the introduction of the technique of sowing in drills, recommended by Operation Cotton, the rôle of the CSB (the Base Sector head) is to give field demonstrations in order to show in practice how to sow in drills. This entails stretching a string from one end of the field to the other with a knot at every 60 or 80 centimetres under which five seeds should be buried in the earth to form the first cluster of seedlings. The CSB is in charge of five to eight villages which form part of his "Base Sector". He spends one day in each village to give a demonstration to the ten or twelve cotton growers concerned. This agricultural extension service was performed by agents of the Operation before the introduction of functional literacy; it is therefore natural that it should continue with functional literacy and go on being the particular task of the CSB.

The innovation introduced by the literacy programme is that after certain notions have been instilled by practical instruction in the field, they are later discussed and gone into in more detail by the group of growers who make up the functional literacy class, at a meeting where these notions are reviewed, no longer in concrete terms but in an abstract fashion; this is known as the "recapitulation" session.

The rôle of the specialist in vocational training from the National Literacy Centre consists in preparing the tools for the discussion, i. e. for this recapitulation session. These tools are of two kinds: a wall chart depicting the problem and a technical or technico-pedagogic document serving as a guide for the instructor. The wall chart is prepared by the Illustration Section. Very often it is a photograph, since experience has shown that photographs are very alive for the peasants, more so than certain drawings.

. . . The aids for the recapitulation discussion are the problem-poster and the technical card supplemented after trials by the teaching card . . .

Vocational Training

TB-No.6

Technical card

Preparing holes in the field:

For planting seedlings

Once the plots have been laid out between the irrigation channels, holes must be made so as to facilitate the penetration of the manure and fertilizers.

Conditions for making holes properly:

To make holes correctly, the soil should be friable and not too dry.

How to make the holes:

The holes are made with the "daba" in lines parallel to each other and at right angles to the irrigation channels.

Dimensions:

They should be about 15 to 20 cm. deep and 12 to 15 cm. wide.

Spacing:

The lines of holes should be 60 cm. apart (centre to centre) and the holes should be spaced 40 cm. apart along the line.

When a suitable measuring instrument like the dibber measures 40 cm., the regularity of

.../...

Vocational training

TB-No.6

Teaching card

Materials: poster showing badly made holes

What the instructor says	What the trainees say
Here we see a piece of ground ready for the transplantation of seedlings. Are the holes in line?	No, the holes are not in line.
Are the lines parallel?	No, the lines are not parallel.
Is that all right?	No, it is not all right.
Why?	Because it leads to poor use of the ground.
What ought to be done?	You should mark out parallel lines and
How do you use the dibber to make holes?	keep the same distance between the holes (60 cm. between the lines and 40 cm. along the lines).

However, there are many drawings which are attractively coloured and in which the vocational training specialist can ask the illustrator to include significant details which are useful from the teaching point of view. Each photograph depicts a problem or familiar workaday scene, designed to stimulate discussion. Faced with the wall chart or photograph, the group of peasants should ask questions. The rôle of the organizer of the recapitulation session is to help those concerned to put these questions and discuss them among themselves; it is also his task to direct the discussion.

If possible this session should be organized by the same person who gave the practical demonstration; this is what is most desirable and is often done in practice. However, in the agricultural operations it sometimes happens that certain heads of Base Sectors are overworked owing to the number of villages they have to visit, and cannot come regularly to hold the recapitulation session. In this case, the literacy instructor, a volunteer from the village, runs the session. In any event, the organizer of this session receives a second tool from the Literacy Centre to enable him to bring out the important aspects of the subject and to help the discussion flow. To start with, the organizer was given a "technical card" to remind him of the main points to which he should draw the peasants' attention. But it was discovered that, only too often, the person concerned, whose training as a teacher had been very rudimentary and whose technical knowledge was sometimes rather limited, confined himself to reading or translating the technical card provided, instead of using it as an aide-mémoire. And so, to avoid this dry method of conveying information, it became increasingly common practice, as the execution of the programmes progressed, to replace this technical card by a technical-teaching card, which is simple and sets out the same information, but in a different way. The card is divided into two parts by a vertical line: on the left-hand side are the questions the organizer must ask those present to launch or relaunch the discussion about the picture used in the recapitulation session; on the right-hand side are various replies, which are the best that those present could make; the object is to encourage the audience to engage in a discussion which will lead them to a solution. As a rule, particularly in rural areas, the peasants are sufficiently realistic about matters that affect them to be able to arrive at the best solution by themselves, through discussion.

Discussion is not confined to vocational training subjects proper at the recapitulation sessions. The first part of the session is concerned with these subjects; the second part includes as well a socio-economic training subject which is handled in the same way, in the form of a guided discussion with the help of a wall chart and a technical-teaching card for socio-economic training. In the first year, the subject is nearly always related to questions of hygiene, work safety rules or health education. Thus half the socio-economic training programme for cotton, groundnuts and rice growers is devoted to the supply of drinking water (digging, protection and maintenance of wells, preservation of drinking water), the second half concerns protection against insects and rodents, precautions to be taken against toxic products used in agriculture and certain major endemic diseases.

With a few exceptions, it is not until the second year that the more strictly economic and civic subjects are tackled, such as the destination and economic rôle of agricultural produce, public services, savings and investments.

The recapitulation session serves a twofold purpose: it helps to develop the peasants' intellectual grasp of the ideas related to his everyday life and it serves as a means of transition towards reading, writing and arithmetic, in other words, literacy proper, or "intellectualization", as the literacy teachers of Mali sometimes say.

The literacy material is prepared by the National Literacy Centre drafters. For this they use information collected during the environmental study, in the course of team work carried out with the illustrators, evaluators, specialists in vocational training and representatives of the enterprise or Operation; they also use draft technical-teaching cards and problem posters, prepared by the illustrators and specialists in vocational training.

The task of the drafters is to prepare documents for reading, writing and practical arithmetic to assist the organizer of the meetings which, during the week, will follow the recapitulation session. As regards reading and writing material, the meeting's work is based on a short sentence - sometimes even a word or expression - which sums up the problem picture, the vocational training or socio-economic education poster. It is a simple little sentence, which can be used throughout the sequence and even at times, when necessary, be taken from a previous poster. The reading and writing card prepared by the drafters always contains an illustration reproducing on a smaller scale one of the problem pictures studied at a previous meeting or at an earlier recapitulation session. Under the picture is the short sentence summing up the situation or problem, and reading is taught by using key words in this sentence, singling out syllables and then letters from them for identification. The reading session thus leads to the daily learning of a new letter and this is followed by the synthesis phase in which syllables, then words, are reconstructed, using the letters learnt on the same day or preceding days.

For some programmes, the drafters have provided the organizers with a set of mobile letters, and for the first five or ten sequences even descriptive captions printed in large letters which can be affixed to the poster on horizontally strung threads. Those responsible for the project have

. . . A decisive stage in the approach of a course of instructors taking its cues from situations at work . . .

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UNESCO - B.I.T.

REPUBLIQUE DU MALI

PROJET - PILOTE D'ALPHABETISATION FONCTIONNELLE DES ADULTES

RESUME D'UNE METHODE DE DETECTION ET DE FORMULATION DES BESOINS DE FORMATION DES TRAVAILLEURS ANALPHABETES EN MILIEU INDUSTRIEL

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Formation professionnelle industrielle

Bamako, novembre 1971

Work-oriented Adult Literacy Pilot Project in Mali

A method of identifying and formulating training requirements of illiterate industrial workers

FOREWORD

Why the need for a method of identifying and formulating training requirements of illiterate industrial workers ?

Functional literacy schemes, as we know, provide made-to-measure training, and must therefore take account of the specific nature of each situation and each problem. Courses must be geared to the needs of the workers and of the factories and workshops for whom and for which they are intended.

Such courses can be designed only on the basis of the fullest possible inventory of the training requirements which must be met.

Objective information on these requirements is therefore essential, for on it will depend, to a very large extent, the success or failure of any functional literacy scheme.

In connexion with the present project, we have observed that an excessively empirical approach had, in the past, been adopted towards the study of training requirements in State-controlled companies, as a result of the absence of any research method for getting a rapid, thorough picture of the enterprise and of the tasks performed there by the workers for whom the literacy course is planned.

This has generally resulted in programmes being devised in unduly abstract terms, that is, not in close enough touch with the daily reality of the working situations experienced in the workshop or on the site.

The method presented in the following pages aims to define clearly the new skills which workers occupying various posts must acquire so as to meet the requirements of their jobs, and it is designed to highlight all those aspects of a specific job in carrying out which the worker might benefit from training and even from further training.

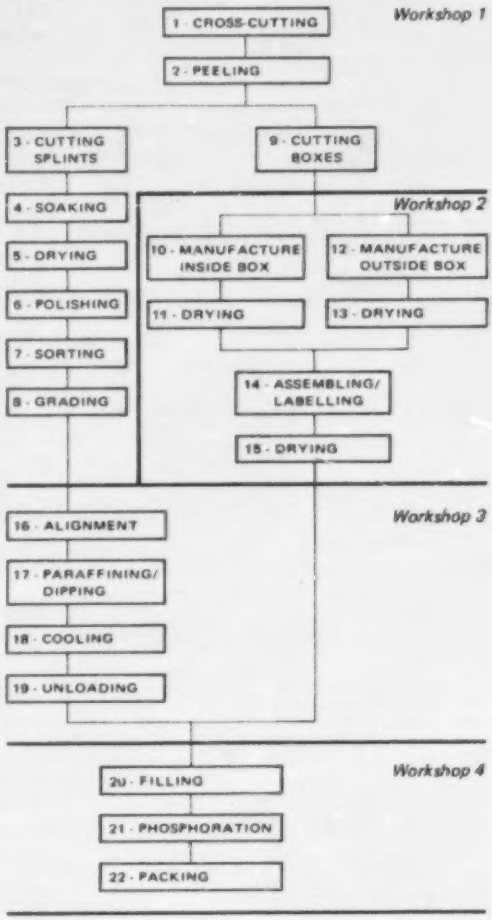
This method was first developed and tested in a match factory[1] and subsequently applied in a large textile mill[2] where it provided an opportunity to assemble all the elements required to establish a syllabus, the content of which is closely linked with the industrial activities of the factory etc.

The following is a summary of the various aspects of this experimental method.

1. SONATAM - Société Nationale des Tabacs et Allumettes de Mali, Bamako.
2. COMATEX - Compagnie Malienne des Textiles, Ségou.

Enterprise: SONATAM Matches **Document I**

DIAGRAM OF THE PRODUCTION PROCESS



decided to use, for all texts, levels and purposes (reading as well as writing), one style of writing, i. e. unconnected script, with no capital letters, in order to simplify and speed up the learning process. This suits pupils at literacy centres very well but experience has shown that many instructors, who have been to school but not had enough training as teachers, always tend to put up on the blackboard samples of writing with many traces of cursive writing or print. It therefore seemed more effective to provide, at least at the beginning, samples of writing to be copied.

As a rule, the same sentence as the one on the vocational training poster can be used until the end of the sequence - that is, usually until the end of the week - for three or four reading and writing sessions. Each of these sessions is divided into two parts, the first reserved for reading and writing, and the second, of approximately the same length, for practical arithmetic. In principle, the practical arithmetic lesson, like the reading and writing lesson, is related to an occupational or socio-economic problem which has been studied earlier.

However, it was often found difficult to harmonize the assimilation of mathematical concepts with occupational problems. This difficulty does not arise, or in any case is far less common, in reading and writing, since it matters little whether the letter "s", is taught before the letter "f", or vice versa. In arithmetic, on the other hand, there is inevitably a certain order in the learning process which sometimes means that notions unrelated to the vocational training part of the course have to be introduced into the programme. At all events, since the beginning of the pilot project, the drafters have become accustomed to establishing closer and closer links between the arithmetic lesson and the latest recapitulation session. In this connexion, it should be pointed out that this is the field in which classroom traditions have been the most enduring. Although everyone knows that adults, even illiterate adults, have acquired on their own, some working knowledge of figures, it was some considerable time before the arithmetic programmes ceased being a series of lessons arranged in the order of assimilation of notions and operations adjusted to the reasoning and intellectual powers of children, and became a genuine practical arithmetic course, turning mainly on occupational problems and means of solving them.

The decisive stage in this evolution was reached after experiments had been carried out by an expert in vocational training, specializing in the study of jobs and the development of a method of identifying and formulating the training needs of illiterate industrial workers. This method intails, firstly, the preparation of a preliminary list of all the jobs in the workshop or enterprise, and secondly, for each job, the listing of the items of knowledge and abilities required to perform the relevant tasks; and, finally, the identification of the training needs that are not met: a description of these needs makes it possible to draw up an arithmetic programme and also, if required, a reading and writing programme (dictation, composition, or design, according to the workers' requirements).

In addition to the "intellectualization" material, there are documents intended solely for the organizer and consisting mainly of the Guide de l'animateur (Organizer's Handbook), a fairly short collection of general notions designed to help the organizer to remember how to teach the different subjects involved in functional literacy instruction. In most cases, the idea of providing a teacher's guide with instructions for each lesson had to be dropped - experience showed that the majority of volunteer organizers could not take time off to consult documents before taking the class. And so it was necessary to be content with the publishing of the Guide de l'animateur, first written in French, and now translated into Bambara, which contains general advice and is more or less a reminder of the concepts taught at the basic training course which precedes the opening of the literacy centres.

The actual presentation of the teaching tools has itself evolved. At the outset, the reading and writing and arithmetic cards, as their name would imply, were separate cards distributed by the organizer every day at the beginning of the reading lesson, then at the beginning of the arithmetic lesson to sustain the interest of the learners. But production costs for this method were too high and it took up too much of the time of the organizers, who are not always able to classify their material correctly; so it was gradually replaced by the method of having small folders specially designed so that the peasant can carry them about with him all the time in the pocket of his work clothes.

The teaching equipment for the second year (second phase) as compared with the first is largely freed from the constraints of school-based teaching, both as regards the order for teaching the concepts and their breakdown into subjects. The most recent equipment consists of a set of leaflets, divided into sequences, each beginning with a text relating to a concrete situation, followed by a whole series of questions, exercises and recommendations that require or refer to a knowledge of arithmetic, composition, administration or management, provoking further thought on the subject of the sequence and developing all its aspects.

STAGE FIVE : PRODUCTION OF THE MATERIAL

The teaching material thus prepared is then sent to the Literacy Centre's printing press which is sufficiently well staffed and equipped to carry out all the work necessary for the current activities of the Project. Only in exceptional circumstances, (at peak periods when the volume of work exceeds

the capacity of the Centre's printing press) and not owing to inadequate technical means, have those responsible for the Project been obliged to make use of outside printers.

STAGE SIX : STORAGE AND DISTRIBUTION

All the teaching material produced by the printing press of the National Literacy Centre represents such a large volume that, since 1970, severe storage and distribution difficulties have arisen, which could not be handled on the small temporary premises occupied by the Literacy Centre in Bamako. The construction of storage sheds in the courtyard of this building has served only as a palliative. The real solution depends on the strictly planned and organized use of handling and transport equipment; this had not yet been achieved at the beginning of 1972 and distribution of the material was still undoubtedly one of the weak points of the Project.

In this connexion, the following anecdote sheds light on the background of penury with which the Project has constantly had to contend. At one time, in order to facilitate and speed up the conveyance of the material to the literacy centres, it was planned to make up standard consignments, containing all the wall charts, cards and captions available at the Production Centre, to be loaded on vehicles bound for the Regional Directorates. To do this required cartons or small cases which of course there was no question of buying new. The management of the Centre therefore contacted the largest retail food stores in Bamako in order to obtain the exclusive right to pick up various strong cartons, 20 x 30 x 50 cms , which would be particularly suitable for the size of the consignments of teaching material. Agreement having been reached over the telephone, the officer in charge of distribution at the National Centre drove up with a lorry at the agreed time and place to take delivery of the empty boxes... only to find that he was in fact competing against a hostile crowd of small carriers and pedlars who were used to relying on this source of supply for cheap packaging and would thus be deprived of their day's earnings!

In addition to the printed material there are audio-visual aids (stills and motion picture films, radio broadcasts, travelling exhibitions) as well as various accessory materials: calendars, farming notebooks, wall charts with lists of terms, etc. The stills are usually related to vocational training subjects illustrating them in detail and stimulating discussion. The eight 16 mm. motion pictures are either documentaries providing information and inspiration, or socio-economic training films, or again films giving an introduction to technical and scientific subjects. They are screened in villages in zones where literacy centres already exist in the course of tours made by the audio-visual section of the Project or by the Regional Directorates.

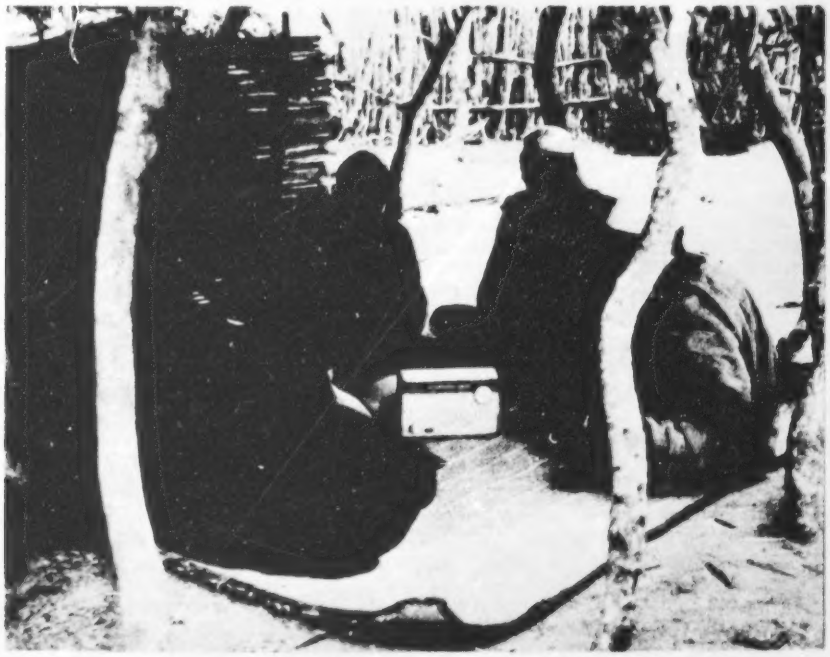
The ever-growing importance attributed to audio-visual material in the form of travelling exhibitions is noteworthy. Every year, those in charge of the Development Operations decide, on the basis of the average level reached by the majority of the growers in each zone(1) to make a special extension effort bearing on one or two subjects likely to lead to rapid progress in current practices. Their association with the Literacy Project has made it possible for them to plan and carry out tours that are especially designed for this purpose: the Literacy Centre and the Operation select and make a series of six or eight wall charts showing a step-by-step breakdown of the technique to be adopted. For example, in 1970 it was a question of demonstrating how to draw a right angle on the ground, in order to plot rectangular fields in which sowing in drills and the calculation of the quantity of fertilizers, seeds, and insecticides is much easier. The six or eight wall charts, with appropriate commentaries, are placed on hinged panels, with equipment for the demonstration: 12 metres of cord, lengths of string, spacing rulers and leaflets. Everything fits into a van; the demonstration team is assigned its tasks and given an exact itinerary. The team consists of a chauffeur-operator from the Literacy Centre, and a CSB or head of the ZER(2) from the Development Operation. They arrive in a village, usually where there is a market, on the day when the peasants converge on it from the surrounding area (where there is a particularly dense concentration of literacy centres); they unwrap the panels, install the loudspeakers, and begin the demonstrations for the peasants who are attracted by the sound of music (one of the pieces always played is "Kalan Kadi", the literacy signature tune, composed and sung by one of the best known singers of the National Troupe). Leaflets are distributed which reproduce the drawings on the panels and will help the peasants to succeed, in their own fields, in doing the marking out and measuring operations they have learnt to do with the instructor after the demonstration.

Earlier(3) the extent the method here described is the outcome of a long evolution which, of course, is not yet finished and is probably still, far from being so was outlined; there are weaknesses, some of which were emphasized in the text which have yet to be eliminated, partly by ensuring increasingly strict application of the principles that have been laid down, and partly by their continuous revision in the light of experience.

(1) The sphere of influence of the Development Operations is divided into four or five zones, each corresponding to one, two or three administrative circumscriptions.
(2) Rural expansion zone.
(3) See Chapter 3.

Now it would be useful to see what other preparatory measures are taken nearer to, or at the level of, the production units, and how the Malian method is applied.

. . . The printed material is supplemented by radio broadcasts . . .



Chapter 5

Functional literacy in the field

Whilst the National Production Centre at Bamako, the capital, draws up programmes and produces teaching equipment, all kinds of other preparations are being made in the regions.

Functional literacy teaching in Mali at present extends to seven Regional Directorates. At the beginning of the literacy campaign, the Regional Directorates coincided with the six Economic Regions of Mali; but it soon became necessary to subdivide the largest regions according to their size or the density of their literacy centres, so as to allow all literacy teaching activities to be controlled more effectively by a Regional Director. Thus, by 1966, when the Pilot Project was launched, the number of Regional Directorates had risen to ten.

After 1968, functional literacy centres were established in one of the three Regional Directorates of Bamako and in that of Ségou; then in 1969, similar centres were set up in another of the Bamako Directorates and in that of Kita; and, in 1970, in the third of the Bamako Directorates and in that of Sikasso. When this new system had proved its worth, the Mali Government, with a view to using its inadequate resources to the best advantage, decided, as from January 1971, to suppress all Regional Literacy Directorates having no functional centres; to increase the funds (equipment) of the Functional Literacy Service, and to concentrate them on seven Regional Directorates (the six already "functional" - certain of them changing their headquarters - plus the one at Mopti, where the first centres for rice-growers were to be opened). Thus there are at present seven Regional Functional Literacy Directorates governing five of the six Economic Regions of Mali: three in the Bamako region - at Koulikoro, at Bamako itself and at Diofla; one in the Kayes region, with its headquarters in the circumscription with the record production of groundnuts at Kita; one in the region of Sikasso located at Koutialia, in the heart of the cotton-growing zone; and one for the whole of the Ségou region, which coincides with the Regional Directorate, located in Segou itself. At Mopti, the Regional Directorate controls the functional literacy centres in the Mopti circumscription only, plus a few centres established under the former national campaign which refused to close down, and go on operating without any material support, pending developments permitting the opening of functional centres in the neighbourhood. Thus the administration of traditional literacy teaching has been reorganized and concentrated to allow for the extension of the new system which, in 1972, encompassed 80 districts of 17 circumscriptions (out of a total of 42 in the whole of Mali), spread over five regions.

Before 1966, under the traditional literacy system, each Regional Director was responsible for an average of 60 literacy centres. The functional Literacy Project provided for the establishment of a total of 2,500 centres, with certain regions having as many as 800, i.e., at least ten times more than before. This Project likewise provided for increasing the resources available to Regional Directors so as to give them effective control of the literacy centres. This was the task foreseen for the heads of functional literacy zones, generally called in Mali by their initials, heads of ZAF (zone d'alphabétisation fonctionelle). In principle, a functional literacy zone should coincide with a district.

The smallest administrative unit, in Mali, is the district, which comprises between 50 and 120 villages, according to the region. This is also the unit used for the organization of agricultural development, in which case it is known as ZER (zone d'expansion rurale - rural expansion zone). The organizers of the Project intended to make the ZAF coincide with the ZER and with the districts, so as to facilitate the work of those responsible for the co-ordination of the general administration (district heads), development operations (ZER heads) and literacy teaching (ZAF heads). The first calculations were based on an average of 50 literacy centres per chief of ZAF, and the first batch of fifteen of these officials was recruited from 1969 onwards. This is the machinery which is carrying out the first phase in the literacy campaign: exploration of the terrain.

EXPLORATION

What does this consist of? It is a case of picking out, in a ZAF, the villages where literacy centres can be set up. The head of ZAF, accompanied often by the Regional Director, goes to inspect various pre-selected villages lying within the area covered by Development Operations, and distinguished by the fact of having at least one "literate" inhabitant apiece. The ZAF head and the Regional Director tour all the villages in a district selected beforehand in agreement with the Development Operation and the Administration, meeting the authorities of every village - the chief and the elders forming the village Council - to inquire about their attitude and find out whether the population would be interested in functional literacy teaching. This of course involves explaining what is meant by literacy teaching, and, in particular, showing the villagers what bearing it could have on their immediate, direct concerns.

Most of the villagers in Mali are naturally interested in functional literacy and continue to be so even when they have been informed what obligations it will imply. They are told clearly that, if they wish to have a functional literacy centre set up in their village, they will first have to form a Literacy Committee, composed as a rule of the village chief, two of his advisers, a representative of the women and a representative of the young people, the agricultural monitor and, if there is one, the medical orderly. Then this Committee will have to find, in the village, people who will volunteer to act as organizers, i. e. people able to read and write who, after being trained, will be prepared to take classes; the Committee's next task will be to make a list of people in the village - men and women between 15 and 35 years of age - forty or so per centre, who will attend the literacy classes; everyone in the village will have to lend a hand with the construction of a building to house the class if necessary. Lastly, the Committee will have to keep organizers and students up to scratch and take what measures it thinks best to provide the paraffin required for the lamp, when classes are held in the evenings. When a radio set is provided - which is not always the case - the Committee will need to obtain from the village the batteries required for running it. Despite all this, few villages which are eligible - i. e. which have one or more inhabitants who are literate - decline to have literacy centres installed in them.

After making this exploratory tour, lasting several weeks or even months, the ZAF head will have a list of villages anxious to receive literacy teaching, together with a list of the names of literate persons willing to organize classes and selected by the Literacy Committee of their village. When there are about fifteen such villages and some thirty volunteer organizers, on an average two per village, a training course can be arranged.

ORGANIZERS

This first course for the volunteer organizers in one part of the district, is called a basic course, and is designed to turn these village "literates" into literacy instructors. Who then are these village "literates"? They are, basically, of two types. There are firstly, men well-advanced in years, usually wearing little white beards, and known in their village as "war veterans". This means that they have done their military service, which may have taken them to remote parts or garrisons, to battle-fields outside Africa, whence they have returned surrounded by an aura of great prestige. They may also have returned with a certain amount of knowledge, for they will have learned and used the French language and often, while in the army, attended courses in reading, writing and arithmetic; so that, in many cases, they have long been the only people in the village able to serve as interpreters or to read news received in writing, which means nothing to most of the inhabitants. This type of literacy instructor has a certain standing in the village and could therefore exercise authority over a class; but his knowledge is often rather out-of-date and patchy.

The other category of instructor to be found in the villages consists of people almost diametrically opposite in type. They are young and, therefore, have little authority in the village; but their knowledge is fairly up-to-date, having been acquired in the local school which they have attended for four, five or in some cases six years. Had they been at school ten years ago or so, they would probably have had an opportunity to stay in the town. Those who have returned to the village belong to one of the recent batches of young village boys who went off to school in the hope of getting jobs subsequently but who, being unable to continue their studies beyond a certain level, returned to the village to live and work with their parents. The ideal arrangement for a literacy centre is to have one of each of these two types of organizer: one possessing authority, the other having reasonably up-to-date knowledge. But there is often only one potential organizer per village, in many cases not even that.

BASIC COURSE

Old or young, these "lettered people" fulfil a function in the life of their villages. They are all farmers, some of them even in charge of agricultural enterprises; their presence in the village is generally essential for the running of their enterprises so that it would be inconvenient to arrange training courses which took them away from home for a long period. This is why it was decided, after trying out courses of various lengths, to cut down the basic course for the training of organizers to five days. For organizers possessing neither

aptitude nor previous training, five days is obviously very little! And the curriculum for these courses has had to be reduced to the absolute minimum. The courses comprise, basically, two parts: the first, for all people able to read and write French, consists of instruction in the writing and reading of Bambara. The choice of an alphabet very close to the French alphabet makes matters easier: there are only five or six letters which, in Bambara, have a different sound from the one they have in French (the French "u", for example, stands for the sound "ou" in Bambara; "c" and "j" represent the sounds "tch" and "dj"); also, the order of the alphabet is slightly different. This being the situation, learning to write Bambara does not take long: only half a day is spent on presenting and explaining the alphabet, and the students get practice in using it during the rest of the course.

The remainder of this course - four days or more - is spent on explaining the method of functional literacy instruction, presenting teaching equipment, and, in particular, giving practice in the handling and use of such equipment, whether collective (such as the pressure petrol lamp, generally little known in the villages, on account of its cost, the posters for recapitulation sessions or the technical-teaching cards), or individual pamphlets for distribution to the students attending the centre.

The basic course is essentially practical. All organizers taking the course are required to study the notes they are given on reading and writing, arithmetic and vocational training; and each in turn has to give one or more demonstration lessons, which are then criticized and discussed by his colleagues, the instructors, the ZAF head and also sometimes, when they are able to attend the course, the Regional Director and the ZER head of the Development Operation.

One question arises in relation to these organizers: since they are engaged voluntarily, and receive no pay, why do they agree to do this work? What is it that can induce them to work without pay? It should be noted, first, that questions like this are often asked by people who come from elsewhere to visit the literacy centres, but they are not asked in Mali itself, because, here, this kind of devotion to the community is common, and it does not surprise the Malians. The fact remains, nevertheless, that the goodwill, the enthusiasm, sometimes, which the organizers bring to their task does need some explaining. The explanation seems to be simple: it is to be found in the solidarity of the social structures of the family and the village. Family and village traditions have remained very strong, from the great historic periods of the Empire of Mali down to the present day, and to serve the community is regarded as normal. It is true, of course, that factors of social change and unrest have recently emerged, but they have not yet had the effect of changing this spirit. It is even possible that they have reinforced it: take, for example, the case of those young people who, five or six years ago, had left the village to go to the nearest school - located in some cases ten, fifteen or twenty kilometres away. They took with them the hopes of the village, they were children who were going to school to gain access to another kind of life from which, because of the spirit of solidarity, the whole of the village would profit: the salaries which, they thought these studies could not fail to bring in, would enable them to live in greater abundance. But then, after a few years, it turned out that the village child was no longer capable of keeping up at school; he probably tried for a while to get some minor job in the town, which would have been possible a generation ago; but now there are too many people like him, so he returned to the village. Not only were his parents disappointed but he too felt that he had wasted his time, both personally, in that what he had learned at school was of no use to him, and as regards the hopes the village had pinned on him. And now the literacy authorities come along proposing to set up a centre in his village, and asking for people able to read and write and prepared to place their knowledge at the disposal of the village community! It represents, for these young people, an unhoped-for opportunity to make use of - and gain prestige from - what they have learned, to render the services to the community which they had failed to perform because of their lack of success at school! Cases of the "literates" of a village refusing to work as organizers are thus unknown.

On the other hand, it may be that the level of some of the volunteers is so low that they cannot be entrusted with the organization of a functional literacy centre. In such cases the ZAF head and the Regional Director will be faced, at the end of the training course, with the extremely delicate task of explaining both to the volunteer and to the community that such rudimentary knowledge as he possesses is not sufficient as a basis for opening a centre in the village.

OPENING OF FUNCTIONAL LITERACY CENTRES

These centres are, in principle, opened immediately after the completion of the training course. The knowledge acquired by organizers attending a training course is so rudimentary and practical that it is obviously advisable for them to put it into application immediately, before they forget it. Thus, as soon as the organizer returns to his village, the Regional Director or the ZAF head comes to give him the literacy equipment: blackboard and chalk, pencils and exercise-books, paraffin lamp and batteries, and also the folders of documents for teaching reading, writing and arithmetic, calendars and a set of documents for the use of organizers (posters, vocational training cards, weekly syllabuses and the Guide de l'animateur). There is a small ceremony in the course of which

all this material is presented to the village and entrusted to the organizer, under the supervision of the Committee. Courses can then begin at once, the same day. There is sometimes an official opening ceremony, in the presence of the Literacy Committee; after which the ZAF head may make comments, in private, to the organizers, and give them advice about how to run the class.

In principle, the organizers fill up an attendance sheet, every day, with a list of names of all the people enrolled for the course by the village Committee. This sheet should indicate: the content of that day's lesson, the names of the people absent, and the name or names of the organizers taking the class.

The peasants are extremely keen to learn. They crowd the benches of the literacy centres and apply themselves to learning with an avidity and diligence which many schoolchildren would find astonishing. There are, nevertheless, serious causes which upset regularity of attendance and the running of these courses. The truth is that a farmer, all the year round, has good reasons for doing things other than going to the literacy centre. In April or May, for example, before the onset of the first rains, he has to spend practically all his time clearing the land and preparing the soil. This takes an enormous amount of time and effort, with the result that this period is not very suitable for literacy courses, as all the students will be exhausted after a very long day's work. The first rains sometimes begin even before the work of clearing the fields is completed, and farmers have to sow the cotton, millet and groundnuts (for the farmers taking part in Operation Cotton have, of course, to grow the traditional crops for their food), attend to the resowing and do a great deal of weeding, all of which also takes much time. The result is that, up till the end of August, their agricultural work leaves the peasants very little time for attending classes; besides which it must not be forgotten that the organizers themselves are farmers, and that they, too, have the same jobs to do.

After the short respite in the month of September comes the harvesting period, beginning with the groundnuts in October and lasting until December, with the rice; besides which there is all the work connected with the storage and sale of these crops, going on until February or March. This is followed by a very different period during which, as there is little farming work to do, the young adults from 15 to 25 years of age, who form the greatest proportion of the literacy classes, go off to the town where they hope, by engaging in work not demanding very high qualifications, to be able to collect a little money for their personal use and also to pay their family taxes with. During this exodus, which lasts from February till May, the literacy centres are poorly attended, and are sometimes obliged to close down altogether.

It would be a mistake, none the less, to imagine that they have closed down for good: the people continue to be interested in the courses they have begun, realizing the direct benefits to be derived from them. And, paradoxical though it may seem, there are certain centres where the attendance figures rise considerably at the height of the exodus period. Such is the case at Kimparana, the chief town of the district of the San Circumscription, in the heart of the cotton-growing area; there is a cotton-ginning factory there, which goes into operation with the arrival of the first consignments from the harvests of the surrounding villages, i.e., in December. For this peak period, the factory takes on temporary labour, provided by young farmers who are free after finishing the harvest on their family farms. Since 1970, many of these young peasants, who had been attending literacy courses in their villages, have simply gone to one of the three centres opened in Kimparana, a small town the bulk of whose population is also engaged in cotton-growing. The centres in the surrounding villages, on the other hand, normally resume their activities in April, when the young people return home.

There are, however, certain centres which have been forced to close down altogether; and it has always been very instructive to make a closer investigation of the reasons why this has happened.

In two district centres of the Segou Circumscription three literacy centres which made an enthusiastic start, one under the Cotton Programme in 1968, the other two under the Rice Programme in 1971, showed a remarkably rapid drop in attendance, to the dismay of the regional and national literacy directorates. Investigation showed that this falling off was due to the same specific situation in both places, although they were some 150 km. apart. The point is that both were located on a main traffic route and had very flourishing weekly markets; with the result that the young people in these recently urbanized villages decided that the surest way to advancement lay through trade and transport. It was in the hope of acquiring knowledge that would be useful to them in these domains that they had put their names down for the course, and their disappointment on discovering that the curricula were centred on cotton-growing is all too understandable, nevertheless this is obviously a very wise choice in the case of farmers who, like most of the Bambaras in their villages, are intent on improving their farming activities.

In other villages in the Tominian Circumscription (Ségou Region) there was likewise a marked falling off in attendance at literacy centres at the beginning of 1970. The reason here was that the students, belonging to the Bobo ethnic group, living mainly in the Upper Volta but also inhabiting several villages in Mali, were not sufficiently familiar with the Bambara language used in the literacy teaching documents. Yet during the exploratory phase, the language of instruction had been

announced, and the question had been made quite clear to the literacy committees, which had been told to enrol in the centres only villagers who knew Bambara. But the members of the Bobo group were so keen to learn Bambara, which is the language they need to know in order to be able to take part in the exodus every year, that the young people had insisted on enrolling for classes, despite advice to the contrary, in the hope of learning Bambara by this means.

For these villages - in fact very few - a solution has now been found, thanks to the help of a local scholar who, having spent many years studying the Bobo language was able to compile a small Bambara-Bobo-French lexicon quickly and make it available to the centres. The result was to arouse interest anew, and the attendance figures rose again.

When centres close down for good before completing their programme, it is for one of two reasons: either because the sole organizer has died or departed, or, more often, because the curriculum has been dragged out too long. There have been instances when, owing either to interruptions for farm work or to delays in the supply of equipment from the National Centre, the first phase, scheduled to last 20 to 24 weeks only, has been dragged out over two years. In such cases many students, feeling that they are not making sufficiently steady and rapid progress, lose heart and fall out, causing the centre to close down.

It was in an attempt to remedy this situation that the Literacy Direcorate and that of Operation Cotton, carried out an experiment in July 1971 with the young adults of the Rural Centre at Fana (Diofla Circumscription), applying a crash programme concentrating the 50 lessons of the two phases into eight solid months of regular sessions. The same experiment was tried again, for the 1972 campaign, in three new centres of the cotton zone, and the Study Days held in June 1972 recommended the extension of this system to 500 new centres due to open in September 1972.

Another method had long been used in an attempt to cut down drop-outs and absenteeism. At the time of the traditional literacy campaign, before the Pilot Project was introduced, the Mali Government had applied for and obtained the assistance of the World Food Programme in order to distribute food to the literacy centres.

In fact, in this distribution of food products, it is the honour that counts more than the purely material aspect. The distribution is made in public, at a ceremony attended by all the authorities of the village or enterprise and the representatives of the literacy campaign, i. e., the Regional Director and the ZAF head deliver speeches and publicly congratulate both the organizers of the courses and those who have attended them regularly. The organizers receive larger rations than the students, though the amounts are small in both cases and they are distributed evenly i. e. all those in the student category get the same. There is, however, a scheme to allocate larger rations to students who have made more effort and obtained better results.

The items originally supplied under this scheme were wheat-flour, maize, oil, sugar and tea. But since it transpired that the distribution of heavy substances such as maize and wheat-flour cost(1) the Mali Government too much, agreement was reached with the World Food Programme whereby, from 1972 onwards, only more valuable and less bulky products - tea, oil, sugar and, in certain cases, milk - would be distributed.

THE ZAF HEADS

To control the running of the centres is the responsibility of the ZAF heads, who have gradually increased to 45 in number. One such head, generally speaking, takes charge of the 50 centres, on an average, which it was hoped could be opened in every district. But in fact, the opening of the centres was a gradual process, and there are several ZAF which cover two or even three districts, with a total number of centres falling short of 50.

For his teaching and liaison work, the ZAF head has two main working tools: a motorized bicycle and an attendance register. The bicycle is his own personal property, purchased with the help of a loan from the Project; and when he uses it for official purposes, he receives a monthly petrol allowance and a grant. He has to visit one or more villages every day, to inspect the running of the centres in conjunction with the literacy committees; and spend the afternoon or evening sitting in at courses.

In these centres the attendance register, if properly kept, will provide the ZAF head with as much information about the regularity and attainments of the students, and the capability of the organizers, as he is able to obtain from sitting in at courses.

The ZAF head's work is carefully organized. There is a meeting, every month, of the Regional Director and ZAF heads; and a programme of visits based on priorities, is drawn up for the whole of the month ahead. The Regional Director keeps a copy of this programme, so that he knows which villages the ZAF heads of his district will be visiting on any given day.

The ZAF head may, if he thinks it necessary, hold teachers' meetings after sitting in at courses; he may also organize special sessions on any particular aspects of the curriculum which the organizers do not seem to him to be treating adequately.

(1) In 1971, the cost of transporting the products from the frontier to six storage depots throughout the country, where they were taken over by the Regional Directors of Literacy, amounted to ten times the cost of the total operational (material) budget of the Mali Literacy Service.

Chapter 6 Evaluation

EVALUATION AND EDUCATIONAL PROJECTS

Evaluation is one of the essential requirements of the EWLP.

It consists in calculating as accurately as possible the results of an activity, so as to compare them with its objectives and with the methods and resources used to carry it out.

Apart from circles particularly concerned with sociological or psychological research, where evaluation serves as an excellent means of applying and improving the research instruments, evaluation theory and practice are more often used in economic projects than in educational ones. However, for a very long time now, teachers have been applying a form of evaluation when they compare results with objectives: orals, essays and written examinations are all methods devised and used by teachers within the educational system, with a view to comparing the results (i. e. the knowledge conveyed to the pupils) with the curricula (i. e. the objectives behind the instruction which they provide). Techniques derived from psychology and tests and measurements have even made it possible to achieve a high degree of sophistication in this type of evaluation, as applied to the educational systems.

More often than not, however, evaluation of a training system is confined to its educational aspects. What is needed is a more complete evaluation extending to economic and social aspects: economic aspects, because any educational enterprise calls for resources - staff, buildings, money and equipment - and, as these resources are limited, the public expenditure and income which the various educational enterprises represent must be calculated so as to facilitate the decision-making and put the available resources to the best possible use; social aspects because an educational enterprise is often not solely concerned with transmitting knowledge, but aims ultimately at giving some satisfaction and offering certain possibilities to individuals and to society as a whole; what we want to know is whether these ambitions have been satisfied and how this has been done.

Thus, the complete evaluation of an educational enterprise must, while covering the pedagogical aspects, also provide information on global and unitary costs and on the effects of the enterprise on society and the economy. This type of evaluation is by no means yet a compulsory part of any educational curriculum or system, mainly because the teachers, who generally play a decisive part, are more at ease in the field of pedagogy than in the study of costs or social changes; however in so far as it is necessary to those responsible for making sound choices, research on overall evaluation is becoming more and more widespread.

EVALUATION IN THE PILOT PROJECTS OF THE EXPERIMENTAL WORLD LITERACY PROGRAMME

EWLP has provided an excellent opportunity to conduct a detailed evaluation - which some people even thought should be truly "scientific". In the first place, it was an experimental programme aimed precisely at seeing not only if, but also how the concept of selective and intensive functional literacy teaching could be applied and have beneficial effects on the development of countries with a high illiteracy rate. In the second place, as an educational structure for functional literacy had still to be built up, it seemed easier to calculate its cost and effectiveness than it was with other systems, e. g. the long-established school system with all its complex functioning and effects. Lastly, we may add that as one of the functions of the United Nations Development Programme (UNDP) which gave financial support to EWLP is to make pre-investments, it was useful to collect information likely to enlighten and, in the event of the programme being a success, to convince the financing bodies (national, private or public, bilateral or multinational) in a position to take over from UNDP after the completion of the Programme, to support and develop functional literacy. Incidentally that

is why UNDP made evaluation one of the conditions of its support of EWLP.

All EWLP pilot projects were therefore given an Evaluation Unit, to which an international expert was assigned and which was also to include national specialists. Although the plan of operations of the Mali Project was not very explicit on this point, it was fairly easy to agree on the broad lines of this Unit's functions and programme of work.

Each Evaluation Unit was to have its place within the Project; taking into account the fields of specialization of the members of the unit, it was not only to collect information on long-term results - a task which could, if necessary, be accomplished by research centres outside the Project - but also to stimulate interest in evaluation and its practice among all those participating in the experiment, and help, by preliminary studies and research conducted on request, to provide those directing the Project with information on the progress of work.

The scheme for long-term evaluation was clear and rational; in order to know whether the economic and social situation of the zones covered by literacy programmes was improving, three "photographs" were taken of those aspects of the situation likely to undergo changes, and a comparison drawn between them. These "photographs" were taken at three different times: the first, taken at the end of the "basic survey", before the beginning of the literacy operations, was designed to establish the characteristics of the situation before the Project; the second, the outcome of the "intermediary survey", concerned the same characteristics two years later, at the end of the period for achieving literacy among the farmers and was aimed at bringing out, by comparison, the various changes that had occurred; the third, the result of a "final survey" two years after the end of literacy operations, made it possible to estimate how far the changes were lasting and profound enough to serve in turn as starting-points for other aspects of development and progress. In order to distinguish between the results to be attributed to literacy work and those due to other development factors, the three surveys - "before" "during" and "after" - had to cover two community groups, if possible similar in all ways but one - whether or not they benefited from the existence of functional literacy operations. This was essential for the scientific accuracy of evaluation and called for a certain amount of firmness in keeping these two groups intact.

In both groups, and in each of the three surveys, the collection of information covered four main categories of data, which were significant in relation to the situation and the action undertaken:

data of an educational nature, both quantitative and qualitative, concerning the operation of the literacy centres and the acquisition of knowledge during the courses;

data of a psychological nature, concerning the development of the beliefs and attitudes of the farm workers benefiting from the Programme with regard to the proposed innovations (the question being whether attendance at the Literacy Centre makes the farmer or labourer want to adopt these innovations);

data of a socio-economic nature, deduced from the actual behaviour of the newly-literate farm workers; a discrepancy between these data and the preceding data may point to obstacles whose nature and importance ought eventually to be established for they might hinder the application of the theories taught and reduce the effectiveness of functional literacy operations;

lastly, data of a purely economic nature on the cost and yield of literacy operations; the point was to establish (a) the cost per farmer of preparing and implementing a literacy programme, taking into account the machinery created and the solutions adopted; (b) whether this literacy operation has had a lasting effect on the production equipment of the independent farmers, and on the maintenance and use of the machines by the labourers; (c) whether the yield and productivity have been improved; and, lastly, (d) whether the overall production is increasing and how the fraction recuperated by the labourer is affected.

In view of the principles of functional literacy and the character of EWLP, it is of course this last category of data (economic) which must determine the future of literacy teaching, since the ultimate aim of functional literacy and of the EWLP is to improve living conditions.

All these data were supplied by using indicators of change enabling comparisons to be drawn between one project and another and the factors propitious to the success of a functional literacy programme in widely varying situations to be defined.

PRINCIPLES AND CONDITIONS OF EVALUATION IN THE MALI PROJECT

An evaluation programme as extensive, coherent and complete as this, applied on an experimental basis to a new and original enterprise like functional literacy, is of considerable interest from the intellectual and the practical points of view alike. But it is certainly very ambitious, considering the means available for its implementation, particularly in a country with as few resources as Mali.

In this respect, the Mali Evaluation Unit suffered in the same way as the Project as a whole; from the practical point of view, it was obliged for a very long time to make do with resources (premises, equipment, transport) which were extremely meagre and inadequate in relation to the extensive programme which it was supposed to cover. It was not much luckier in the matter of staff; the post of evaluation expert was, of course, one of the first to be filled at the end of 1966, but the incumbent subsequently changed twice during the Project, with interruptions of over six months

each time. As for Malian staff, for a long time there was no one at all, then, when the Unit was finally formed, it consisted only of members who, in general, had received no specialized training and had no experience in the fields necessary for evaluation; the result was that the burden on the successive experts, which was already too heavy, was increased even more by the efforts which they had to make to give a basic training to the Malian staff. The time available for research was thus reduced, without the effects of the training being apparent before the end of the Project, on account of the interruptions mentioned above.

In addition to these difficulties within the Evaluation Unit, there were others connected with the integration of the Unit's activities in the Project and in EWLP as a whole.

Within the Project, the requirements for evaluation techniques, as well as the contribution which this evaluation could make to the functioning and even to the conception of the Project, were not obvious to everyone; it must be realized that, in comparison with previous training systems, evaluation might appear to many as a disturbing innovation and its specialists as a group alien to the Project, responsible for calculating, from the outside, without sharing the concerns of those involved, the cost and effects of the activities conducted by the various people responsible for the operations.

In this connexion, the ideal in the Mali Project was that each agent of the Project, at his own level, should consider himself responsible for playing a positive rôle in the work of evaluation, for his own information and for that of his sector. It had also been agreed that the Evaluation Unit should assist in all research or experimental work that might be useful to those responsible in the Literacy Service and thus provide them with data to guide them, during the implementation period, in the evaluation of each operation undertaken and, if necessary, in the choice of corrective measures to be applied. Apart from the direct advantages for the functioning of the operations, this practical and directly utilitarian application of evaluation was necessary in order to attenuate the impression of too great a separation of functions, with all the detrimental effects which that could have on the Unit and the coherence of the team in charge of conducting the experiment as a whole. But in this sphere, probably more than in many others, a long period of trial and error, successful or unsuccessful attempts, and even a few clashes, were necessary in order to arrive, little by little, at a generally acceptable definition of the rôle of evaluation within the Project.

It is essential to mention, too, that evaluation was considerably hampered by the extension of the preparatory period and of the implementation phase of the Project; as the areas of application of functional literacy and the other conditions of implementation were not defined soon enough, the Evaluation Unit could not undertake a survey of zones not yet delimited and of programmes as yet unknown.

With regard to the integration of its activity in EWLP, as a whole, the Evaluation Unit of the Mali Pilot Project first sought, in an effort to meet the demands of international comparability, to take action in all the areas of investigation covered by the evaluation programme. This programme, however, was too ambitious for the available resources, and the methods of implementing it were too imprecise for all the investigations to be completed.

The people at Headquarters did not immediately perceive the obstacles to the complete implementation of an evaluation programme as ambitious as that devised originally; and when, in 1970-1971, the minimum indicators to be measured were laid down - indicators which would have made it possible to restrict and delimit the field of research - the last year planned for the implementation of the Project had already been reached.

However, despite such difficult working conditions, the Evaluation Unit succeeded in carrying out, on the various levels at which it operated, a number of tasks which could be of great use for the future of functional literacy work.

EVALUATION WORK CARRIED OUT BY THE SPECIALIZED UNIT

In 1967-1968, as a contribution to the tasks of selecting areas to be dealt with, detecting problems and preparing programmes, the Evaluation Unit conducted studies of the general situation, the demographic situation, the economic situation and the problems specific to the zones to be covered by literacy operations. For example, it was due to the Unit's investigations that it was realized that, as cotton-growing was more profitable to the farmers, it should be given preference to rice-growing as an initial sphere of activity of the Project. Subsequently the Evaluation Unit collaborated with the vocational training section and the drafting section in analysing contexts and preparing programmes in a number of branches, such as vegetable-growing in the State farm at Baguineda in 1969, or the production of tobacco and matches at SONATAM, Bamako, in 1970-1971.

The Evaluation Unit also collected information on the functioning of the literacy centres for the regional directors concerning the implementation of the annual extension plans: in 1967 the first model for an attendance register was prepared; it was drafted in French, as was all material designed for the use of literacy workers, who at that period had all been educated in the official language of the country; from this register the general situation as regards each centre could be seen, and in particular how far the syllabus had been covered and how enthusiastic both literacy workers and pupils were. However, because of the average level of instruction of most literacy teachers plus the fact that not enough could be done to train them in its use, this first version proved to be too complicated and too difficult; as

. . . The bilingual (Bambara-French) version of the attendance register . . .

Projet-pilote d'alphabétisation fonctionnelle Bamako

mali ka alifabètizasòn sèriwisida

Registre de présence

nali sabatili sèben

Évaluation

a result, it had to be replaced by another, but the printing took so long that it has rarely been used. Meanwhile a further possibility had arisen - that of using as literacy teachers some of those who had taken the functional literacy courses. As these new literates were only able to read and write in Bambara and not in French, the whole register had to be redrafted in order to produce a bilingual version. Owing to the delay in printing this Bambara-French register and to distribution difficulties, only a small number of copies were in fact used. It is true that when the register was not kept, the literacy teachers who had always been told they should keep note of attendance figures for the courses, had sometimes jotted them down in ordinary exercise books, but their methods were not standardized, and it was difficult to draw any general conclusions which would be valid for the project as a whole.

The fact that the evaluation work mentioned above, which would have been most useful for the administration of the project, could not be fully completed or reach the required proportions was due not only to the obstacles already mentioned, but also to the mobilization of most of the Evaluation Unit's workers for the task of planning and setting up the basic inquiry system which was to produce the first "photograph" of the situation.

First, a trial survey, fairly limited in scope, was conducted in 1967 in districts where literacy operations were not introduced until much later, and then the basic survey in the agricultural sector was conducted, just before the launching of the part of the project entitled "500 Centres 1969", which concerned in particular the cotton-producing villages in the Ségou and South Bamako regions and the groundnut-producing villages in the Kayes and North Bamako regions. Insufficient means to cover the whole of these regions, limited the survey to the Ségou, San and Tominian areas, where the majority of the centres in the "500" operation were due to be opened. The sample covered by the survey was composed of 64 villages, all included in the Operation Cotton zone and divided into two equal groups: a "target group" of 32 villages, in each of which a literacy centre was to be opened, and a "control group" of 32 other villages which were to continue without functional literacy teaching. Each of the two groups were composed of four sub-groups, and each sub-group in the target group was identical with the corresponding sub-group in the control group as to the size of the villages and the amount of cotton grown at the time of the basic survey - i. e. during the 1968-1969 campaign: language was also taken into account, as being a variable of secondary importance.

This survey took 17 days of field work, and was conducted by about 30 people, some of whom were literacy workers - i. e. ZAF heads or members of the Evaluation Unit - and other teachers, students, or secondary schoolchildren on holiday, recruited and specially trained for the occasion. With the help of an extremely full and detailed interviewer's guide, information on each of the 64 villages and on 10 families in each village was collected, so that the survey covered a sample of 640 families in all. (1)

Despite the great care taken with the planning, preparation and implementation of the observation plan (perhaps, indeed, on account of it), the work done in the field had to be subsequently revised several times, as it became clear that after the survey had been conducted villages which had been in one of the two groups were no longer in the situation (i. e. the existence or not of a literacy centre) owing to which they had been placed in that group. This replacement of villages which had dropped out of the survey by others with characteristics absolutely identical with those of the sub-group to which they had belonged considerably prolonged the analysis period, for each percentage calculation covering all the villages surveyed had to be repeated every time a new village was substituted for a previous village which was no longer in the sample group. The analysis of most of the data collected in this survey and their presentation in the form of tables with comments were completed in July 1971. The booklets containing the data, together with a number of tables and a foreword on methodology, were published in July 1972. They provide a considerable amount of extremely detailed information about various aspects of the social, cultural and economic life of families or villages which can be expected to change as a result of functional literacy teaching and which should be taken into account with a view to improving the programmes; a large amount of other information, which has been analysed, but not yet formulated, for lack of resources, will probably be available; this survey, therefore, has provided a sound basis for further evaluation, a basis which, according to the experts, is unrivalled among EWLP projects.

The intermediate survey, covering the same villages and the same families and using the same working tools, was to have been carried out two years later, i. e. during the summer of 1971, at the end of the two phases of the literacy operations under the "500" period of the project. But at that time, on account of the extended implementation period of the Cotton Programme, none of the centres in this zone had completed the second phase of the programme, and the survey could therefore not be conducted when planned. Even at the end of the first half of 1972, too few villages had completed the programme for it to be possible to carry out a complete survey. Thus the June-July 1972 survey only covered the control group of villages, those which did not have a literacy centre: it provided practical training for those conducting the survey and the evaluation staff, and also showed how much progress villages make when they have agricultural extension courses, but not functional literacy teaching.

(1) In fact the number was slightly lower (634) as several small villages did not have ten families.

. . . A study was carried out among the employees who attented two functional literacy centres of the EDM (Mali Power Company) . . .

DOCUMENTATION ET PUBLICATIONS
UNESCO MALI/1745

PROJET PILOTE
D'ALPHABÉTISATION FONCTIONNELLE
DU MALI

L'ALPHABETISATION FONCTIONNELLE DES OUVRIERS DE L'ENERGIE DU MALI

relation d'une expérience d'alphabétisation fonctionnelle dans une société d'état

1971 **EVALUATION**

As regards evaluation of the teaching - recording the number of classes operating under the agricultural sub-project and assessing results obtained in these classes - various investigations have been undertaken at different times, only the most recent, conducted in the second quarter of 1972, have been of any size, though they did not cover all regions or all operations; their results have not been published, but have been of use to the organizers of the project in their assessment of work accomplished and their directives for future campaigns.

In the industrial sector, a study - much more limited in scope, since it concerned mainly the results of teaching in the first phase, but very thorough - was also carried out by the Evaluation Unit, among those who attended the two functional literacy centres of EDM, at the request of the directors of that company. In view of the results they obtained in 1969, at the end of the first phase of the functional literacy programme, a number of workers were able to enrol at the centre for further vocational training attached to the Société: as a result of the study, the other participants were grouped in two homogeneous classes, and they continued their studies to the end of the second phase. A booklet describing this first attempt at collaboration between a functional literacy project and a State company and summarizing the results of the study was published in January 1972.

These are the main - or at any rate the most obvious - spheres of activity of the Evaluation Unit in the functional literacy pilot project in Mali. The work it has done may seem somewhat slight, when seen in the light of the high hopes that were entertained when the programme was launched. But if one takes into account the great material, psychological and methodological difficulties which the evaluators had to overcome and the fact that the basic materials for them to work on were often not available - for the project advanced much more slowly than was expected and the scientific value of the experiment was limited, owing to lack of precision in the administration - it is undeniable that, apart from the results published, among which the findings of the basic survey constitute a most valuable body of information, the idea of the evaluation of all aspects of educational work has made great progress within the project and is now incorporated in all literacy activities, whether they are new or follow on from previous activities.

OTHER CONTRIBUTIONS TO THE EVALUATION OF THE PROJECT

In a country like Mali, where four children out of five do not attend school, where the number of illiterate adults is increasing by over a hundred a day, and where the need for education is keenly felt wherever the introduction of technical progress is possible, the general situation is such that those responsible for literacy operations cannot wait for the results of a detailed evaluation before taking decisions concerning the immediate future of literacy work.

Those responsible have therefore been obliged to find other means of rapidly obtaining a certain amount of information which, though less reliable than that which would have been provided by evaluation, nevertheless throws some light on the rate and level of implementation of programmes.

This is true of the quarterly report which regional organizers have been asked to make, since May 1970; they are required to supply statistics on the centres opened at different times, those which are still functioning, the numbers attending the classes, the distribution and use of teaching equipment for each course and in each period, and the activities of the ZAF heads, whose work they direct within their circumscription.

Most of the material contained in the statements presented quarterly by the project Directorate was taken from these reports. These statements gave figures for the number of centres open and the number functioning in each region, during each period of the project and in each socio-vocational area, and also for the number of people attending the centres and the number of staff trained and in service. These quarterly statistics show that approximately 2,000 functional literacy centres opened since the start of the project. However, although this total may give an idea of the extent of the planning and training activities undertaken during the three-year period, it cannot accurately reflect the present situation, as one centre may have been opened under one particular section of the programme and have ceased to function thereafter; the more recent the section of the programme in question, the closer is the number of centres still functioning to that of centres opened. As a result of the recommendations transmitted to the Regional Directors - that they should obtain more realistic information from their ZAF heads - these discrepancies have been gradually reduced, but there is no doubt that the figures supplied to the National Directorate were somewhat over-optimistic. The surveys conducted by the Evaluation Unit during the first half of 1972 seem to indicate that the number of centres actually functioning during this period is about 55 per cent of the number given by the Regional Directors. It must be pointed out, however, that this survey was carried out during a period when the main agricultural work was finished and a large number of young people were leaving their villages to find work in the towns; and this drop in attendance led to the temporary discontinuance, but not necessarily to the actual closing down, of the centres in these villages.

A further study conducted at the request of the project Directorate concerns the cost of literacy operations, and more exactly the unit cost of providing literacy teaching for one farm worker. Since

no detailed accounts of the overall expenses of the project were kept, an exhaustive and differentiated study of costs and effectiveness in the various socio-vocational areas was out of the question. However, as Development Operations were to take over the responsibility for financing functional literacy work, it was essential to get an idea, however approximate, of its cost.

The expenses incurred during the implementation period of the Pilot Project, including the cost of the first three years spent in preparations and research, could not be included in the study of future costs. Therefore, the expenses incurred in the last phase of the period when literacy centres were opened, were taken as a basis for the study, which, in view of the uncertainties still present, was entitled "Cost Hypothesis". It has three main points of interest: firstly, it would seem to indicate that the average unit cost of functional literacy teaching for one farmer probably does not exceed $30 (15,000 Mali francs) - a sum which can easily be offset by the increase in production; secondly, it shows that this expense may be divided into three more or less equal parts - the first covered by state finances, the second by external aid and the third voluntary contributions from the public. Finally, it provides a pattern for research which facilitates the task of forecasting, checking and keeping account of expenses in future functional literacy programmes.

Moreover, this study draws attention to some factors which increase the unit cost: the extension of the implementation period of the two phases of a programme and the reduction in the number of participants in each centre or in the number of centres in each functional literacy zone.

REFLECTIONS ON EVALUATION

The special Evaluation Unit was successful in providing very useful services and information during the implementation period of the project, and these augur well for the future. But it was not able to achieve all it wished to do. At the same time, in order to improve and continue the implementation of the project, the Directors had to obtain information from various other sources, which was doubtless of no great scientific value, but essential to them.

One lesson, which is perhaps the most valuable outcome of all that was done, can be learned from this situation: the initial conception of evaluation, its methods and its rôle within the project was over-ambitious, in particular, it was unrealistic about one of the countries with the fewest resources among those covered by EWLP: if there is such a serious shortage in the area concerned, of material and financial resources and of trained staff; if a modern administrative organization has not yet been extended to most of the sectors in the life of the country, then perhaps a system of providing information on the execution and results of functional literacy work should not, in the interests of efficiency, have been planned as if all the resources and conditions necessary for its operation were available.

It is consoling to know that such an observation is not peculiar to evaluation in functional literacy: of some attempts at economic planning it has been said, not without reason, that the growth rates planned for were smaller than the degrees of confidence of the statistical data used as a basis for the forecasts - so that one cannot be sure whether the changes noted after the implementation of the plan are due to its execution or to imprecision in the collection of information.

Such observations do not, of course, in any way diminish our belief in the importance of evaluation - or planning - in a training programme and particularly in the functional literacy programme: evaluation is still of prime importance, but the methods and procedures employed must be brought more into line with what can actually be done in the situation: the results obtained in functional literacy work itself, in Mali, were obtained only by abandoning a number of a priori assumptions, by always first analysing means and possibilities and by inventing procedures and methods which were admittedly unsophisticated, but applicable and effective. We now know that evaluation, in order to do what is expected of it, must follow the same route.

Chapter 7

Results - Prospects

RESULTS

The results of the project, seen as it draws near to completion, go beyond those revealed by evaluation. Indeed, the overall results are so numerous and varied, they are found in such vast and different fields and are so rich in promise that it is still too early to describe them all. We may, however, try to assemble the most important ones, grouping them under as follows:

I. The Project has succeeded in establishing, in close co-operation with very varied economic sectors, a large number of functional literacy centres which are in operation and are having a good effect on the standard of knowledge of farm workers and on production.

The number of centres actually in operation is hard to determine - it may be as high as 1,800 or as low as 1,300 - but that does not make any real difference for it is undeniable that when the number of centres in operation exceeds a thousand - as it undoubtedly does - the undertaking has reached a level at which the country's needs can be met and constitutes an experiment of sufficient scope for its successes and shortcomings to be discerned (which would not be so in the case of an experiment limited to a few dozen centres, running perfectly and carefully evaluated, but which would not have had the same character had it been executed on a wider scale).

These centres are unevenly distributed among the main socio-economic sectors: the industrial subproject reached eight socio-professional groups in State undertakings and prepared material for two others. In March 1972, however, only seven of these centres were still functioning.

In view of the quantitative paucity of these results (mainly due to the small size of Malian industries) when seen in relation to the aims of the Plan of Operations and the fact that, for traditional reasons, women had been excluded from certain literacy centres, a programme especially intended for women was prepared in 1970 and was initiated in 1972 in some ten centres already in operation.

Naturally, most of the centres have been opened in connexion with the large agricultural development operations, because they can reach so many agricultural workers, and most of the instructors and students are in these centres: some 60 per cent in cotton production, 30 per cent in groundnut production, 7 per cent in the Office du Niger and 2 per cent in Operation Rice.

The extent to which these centres were linked with development undertakings has been described above,(1) and the literacy services were greatly appreciated by these undertakings, as will be seen a little later.

II. The Malian functional literacy service has been strengthened so that it can meet the demands of continuing action on a wider scale, commensurate with the country's needs.

It now has most of what it needs in the way of equipment, organization, staff and experience to enable it to teach 20,000 to 40,000 new farm workers in concerns under State ownership or Development Operations every year, when international aid comes to an end. However, it will not be able to attain its full potential until the Bamako Sections have been housed in the permanent premises they have been waiting for since 1966.

III. The introduction of functional literacy teaching aroused great interest throughout Mali, and this form of education is already receiving widespread support.

We have seen that interest in literacy teaching was strengthened in those responsible for Development Operations - who were already interested - and aroused among those who were not; now, they have all observed that the peasants in villages where literacy training has been provided are more assiduous in their attendance at practical demonstrations for the public, more willing to adopt the techniques recommended and more active in their

(1) See Chapter 4: The Malian method.

participation in the stages of the campaign involving contacts between farm workers and operational agents (commercialization, distribution of seeds, manure and fungicides ...). The interest shown by those responsible for Development Operations is now shared by those responsible for sectors in which literacy work has not yet been introduced (Operation Tobacco, fisheries, etc.). Their interest is real, for they have agreed to contribute to the financing of certain literacy costs, and all are at present trying - some of them successfully - to obtain assistance from outside sources of financing with a view to continuing and extending literacy work. The same applies to the sector comprising industrial concerns under public ownership, several of the directors of which have specifically requested the introduction of literacy teaching, and have promised to support it.

Interest in literacy work is no less keenly felt among the recipients; indeed, factory workers who have not yet had any functional literacy teaching have been known to express their disappointment when centres were opened for others, and peasants in villages lacking centres (since no "literates" who could serve as instructors were to be found in them) have asked for "technical assistance" to be provided by the instructors in the neighbouring village. But apart from such anecdotes - which are none the less revealing - the general behaviour of the groups concerned points to the deep interest aroused by functional literacy teaching; the numerous centres built of mud, by community effort, or even of cement (at 30,000 Mali francs - or $60 - a ton) the cost being met from their slender resources (from the sale of groundnuts, at 30 francs a kilo, cotton at 50, paddy at 25); the large number of volunteers to be trained as instructors or to enrol for courses when a centre is to be opened; and the eagerness with which the best of the new literates offer their services to spread the light of knowledge in their turn.

We may mention in passing the decision taken by the Government of Mali, which since January 1971 has rejected all non-functional literacy activities with a view to concentrating the very limited resources available to it on the continuation of the Pilot Project.

IV. Functional literacy in Mali shows in practice that the idea that education can be geared to development is perfectly reasonable.

The functional literacy method used in Mali has proved to be effective and flexible. Sixteen different programmes have been worked out, eleven of which are being applied in the same number of socio-vocational groups. The method is geared to development in the following ways:

by the selection of groups and the organization of work, based at all levels on that of Development Operations;

by the well-defined nature of the various programmes, designed to solve the key problems of production and social affairs,

by its conception of the best forms of action at the lowest level, a conception based on the association and participation of communities - villages or undertakings - in the organization and operation of functional literacy training and follow-up work afterwards. The setting up of literacy committees with gradually increasing responsibility is an important factor in bringing about social and economic changes in communities and at the same time a practical introduction to democratic life;

because unit and overall costs are low, as the work is done by voluntary staff and extremely simple teaching materials and methods are used - everything is governed by the scarcity of resources;

lastly, by its efficiency, since the investment that the training of a farm worker represents produces both immediate results (it affects his production and his participation in social activities) and cumulative results (it makes it possible, financially and psychologically, for new centres to be opened, while increasing the value of other investments in material equipment).

V. Functional literacy activities in Mali have paved the way for a radical renewal of cultural life.

In the past, the Malian peasant or worker lived in a civilization which had an oral culture and a wealth of traditions, but which he himself considered to be limited - and limiting; so much so that he thought social development inconceivable until the next generation when his children would go to school, learn the official language and escape from the rural area they lived in. Functional literacy in his own language, however, shows the peasant or worker that written communication is not necessarily a magic key to the outside world - it can be useful to him in his work and enable him to advance in his job; that it is within his grasp; and that, by enabling him to make more contacts, it gives him a chance to move outside the narrow circle in which he previously felt enclosed. Above all, functional literacy opens up to his sight a universe in which his own language has a real part to play, for it can be set down on paper, on noticeboards and in books. This cultural effect of functional literacy is so obvious that some people think it more important than other effects, and many adults, having been educated in French, are learning to write the Bambara or Fulani languages, so as not to lag behind their parents, who have had no education.

Such are, in broad outline, the activities, being carried out under the adult functional Literacy Pilot Project in Mali.

It is far from being perfect. One is even tempted to think that it is particularly notable for its lack of precision, its ambiguity, contradictions and paradoxes; closing centres and interrupting lessons because of rain, using voluntary organizers, many of whom are themselves semi-literate, to run classes, not knowing exactly whether the number

of centres in operation on a particular day represents 50 or 60 per cent of the total number of centres opened - all this naturally disturbs people who forget the importance of bad weather, shortages and apathy and the damage that their erosive properties can inflict on any project.

But although the solutions adopted are unsophisticated, are they not precisely those most suitable for a situation that has too many restricting factors for elaborate schemes to be implemented?

At all events, this Project, as it stands, has made progress: its achievements are evident to all, whether Malians or foreign visitors. Not only is it raising the standards of functional literacy, but at the same time it is contributing towards the progress of institutions, people and ideas. Functional literacy is now so closely associated with development activities that its future as part of them is assured; in these activities it has its place, objectives, methods and means of action. Was not this the real aim of those who set up the Pilot Project?

PROSPECTS

According to the Plan of Operations, the adult functional literacy Pilot Project in Mali was to be completed in the middle of 1971. In view of the delays in the preparatory stage, the Government of Mali secured the extension of international assistance for a further year.

The experimental project is thus coming to an end, but functional literacy work itself will continue: literacy training had begun before the project, and is based on social needs that are so deep-rooted and so acutely felt that it may be compared to a young tree on which a graft has been carried out: the graft having been successful, the tree continues to grow branches, and the fruits it produces now have the improved characteristics of the scion.

Apart from the fact of literacy training's being continued in Mali, it is fascinating to explore its tremendous prospects with regard to:

post-literacy training,
co-ordination with Development Operations,
its influence on the educational system.

Post-literacy training and life-long education. Experience has shown that many new literates revert to illiteracy, even when they have received their literacy training in a language which has an extensive literature, unless they are provided with various kinds of materials and services which will not only enable them to retain the knowledge that they have acquired but also give them a taste for reading and writing and the wherewithal for doing so.

Functional literacy work lessens this risk considerably; the problems of everyday life, for the solution of which the farm worker has learned to handle figures, read and write, constantly provide him with the opportunity to put his knowledge into practice, retain it and even improve it.

Yet we must obviously do more than this. The improvement of working conditions is a necessary stage, but only a stage, in the tremendous task of improving living conditions: the farm worker must be given an opportunity to participate in cultural and social activities and, if he so wishes, in life-long education.

Most farm workers in Mali who have received functional literacy training in their mother tongue find it difficult to go further than the level they reach on completion of the two phases of their programme, because there are no books written in their mother tongue.

There are two possible ways of overcoming this difficulty: they could be taught to read and write other languages which have an extensive literature, or books could be written in the national languages; at the same time the standard of further vocational training should be raised.

The most suitable institutional framework for this life-long education will be the extension of the functional literacy centre: once participants have completed the two phases of their programme, the class, in which considerable attention has already been given to discussion and the exchange of ideas, could become a kind of cultural centre in which there would be an even greater degree of the autonomy and participation which were characteristic of the activities of the literacy centre. Provision should be made for activities undertaken by all to be adapted to the aspirations or interests specific to each group.

The Functional Literacy Service has already made plans for the assistance of these life-long education centres in the three ways just described, and has made arrangements accordingly.

Further vocational training offers considerable scope for the production of booklets in the national languages dealing with the different specialized skills in relation to the techniques used in various jobs and their scientific bases. In addition, it is essential to provide instruction in the principles of management, (the embryonic form of which was the farming log-book) and to encourage farmers to form co-operative associations for production, marketing or purchase; it should not be forgotten that one of the causes - perhaps the main one - of the failure to which attempts to organize co-operatives in Africa have often led is that members could not participate in management supervision because they had insufficient knowledge of reading, writing and book-keeping.

The teaching of the official language is the second line of action that life-long education centres could take, and for which the Literacy Training Service might provide assistance. The Service Directorate set aside funds to finance the development, from 1972 onwards, of a method of teaching French based on a knowledge of reading and writing the Bambara language. This would enable new literates to consult all works written in French, not a few of which are of direct use to them.

The third form that post-literacy training activities might take is the exploration of the cultural

resources of the national languages: it should be remembered that the civilizations of West Africa, those of the Mandings and the Fulani, possess a considerable legacy of traditions, tales, proverbs, and theatrical and musical techniques. The use of writing in daily life, far from making this culture out of date, may on the contrary give it fresh impetus and open up new channels of expression: were not other major literatures, in other ages, founded by the writing down, for popular use, of epics previously passed on orally, such as the Homeric tales in Greece or the Chanson de Roland in France? The rural masses who have recently received literacy training and who are already acquainted with the tales of Soundiata and Da Monzon, having heard them recited by the griots, will be eager to read them when published for their benefit. This is why the Literacy Service has, for some time, put forward the idea of encouraging authors to publish collections of texts in the national languages; the Ministry of Education founded a literary prize for this purpose in 1969.

The press, however, is the most important means of written communication between the literate farmer and the world around him. Even before the completion of the first phases of its literacy programme, Mali undertook, with Unesco's assistance, the publication of a rural newspaper entitled KIBARU ("News" or "Information"), a monthly published entirely in Bambara; the first issue appeared on 15 March 1972. Compiled by a drafting committee including representatives of the Literacy Service, Information Services and Development Operations, it contains a few articles of general information while giving particular attention to rural news and readers' letters and contains a large number of photographs. It was originally intended to distribute one copy free of charge to each literacy centre and to sell the rest to farmers who were prepared to pay the sale price of 20 Mali francs a copy. However, the 5,000 copies of the first issue were bought by new literates; since that time, the number of copies printed has been increased regularly by 1,000 copies a month, and it is still just as successful; not only are all the copies sold, but the editors receive numerous letters containing requests to take out a subscription to the newspaper or poems singing its praises.

Such a publication has a considerable impact: not only does it provide new literates with reading material and information, but it gives a fresh incentive to other workers to ask for centres in their villages. All Malians are proud of the magazine, for it gives them a chance to see their language in print; from the economic standpoint, it shows that peasants whose income is increasing are fully prepared to spend some of it on cultural activities, and this suggests that post-literacy activities might be extended without relying entirely on State funds.

Co-ordination with Development Operations and firms. The second prospect for literacy teaching is that it could be more thoroughly and more extensively co-ordinated with Development Operations and firms: this was where functional literacy teaching came into being and developed, and it is here that the best results can be expected.

Continued collaboration with Development Operations will enable the methodology and content of functional literacy teaching to be made more truly functional, for there will be increased opportunities to introduce information that can be immediately applied, instead of out-moded concepts too closely based on school lessons. Those responsible for Development Operations are increasingly aware of such opportunities, and will always find new material to be introduced into the lessons.

Since December 1971, seminars have been held for staff of Operation Groundnut, at which efforts have been made, in co-operation with literacy training personnel, to identify fields in which the provision of literacy teaching for peasants would, on the one hand, enable the peasants to carry out certain tasks hitherto performed by extension workers and, on the other, allow some of the forms or printed materials used for the operation to be adapted. The principal example was that of the distribution of sacks of selected seeds: the assessment of the needs of villages (estimated in accordance with the area under cultivation), the distribution of full sacks, the recovery of empty sacks and repayment for seeds at harvest time have until now been the responsibility of the demonstrator. Specially prepared pamphlets are to be printed and made available to literacy committees or centres, so that these tasks can henceforth be carried out by peasants. At the same time, editors at the National Teaching Materials Centre will be able to introduce the study of these pamphlets - and the tasks to which they relate - into lessons where previously the method was still to teach 1-a, la, to form the expression "large draught ox".

The organization of the annual "phases" in the field and the supervision of centres may also benefit from increased co-ordination with Development Operations. Responsible on average for 50 centres in each ZAF, Regional Literacy Directorates are unable to provide satisfactory supervision of these centres' activities; but each Development Operation has a very extensive network of agents extending to the Base Sector, which includes no more than six to eight villages. It is to be hoped that Development Operation workers will have more responsibility for the supervision of centres, especially since the content of programmes will become increasingly functional and groups of farm workers from the first villages to be provided with functional literacy training will take over some of the tasks of the CSB.

The prospects offered by increased co-ordination with Development Operations are therefore very favourable as regards both the organization and the implementation of functional literacy teaching programmes, although it is with regard to financing

. . . Since its first issue in March 1972, the number of copies printed has increased regularly and it is still as great a success . . .

san fɛ̀ɛ̀ nùmòrò 8
uli kalo 1972 san

a sàngè : dòròmè 4
b. p. 24 c.c.p. 0165
bamakò (mali)

kibaru

a bè bó kalo o kalo, faso ka kiberudiso ka yamaruya kónó

kalo kura tlo 22, mali bè san ton ni fìla sòrò

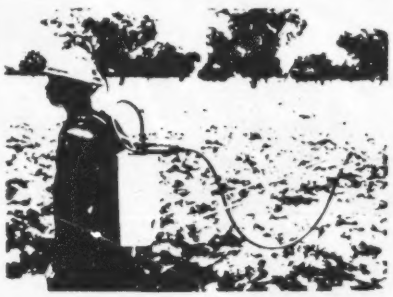
kabini sènènburu kalo tile 22, 1960 san, mali y'a ka yèrémahòrònya ta, ka jènya juru tigè. k'a daminè 1960 san na fò sisan, yèrémahòrònya in ta don kunbèn, o y'anw fò yan sellba ye, sellba min n'an y'a labìlen, dò de bè fère o dawolo kan san o san ka t'a fè.

an bè bi min na, mali ye nènna bè nafa sòrò sira kan. uzinw jòra farabè, jamana denmisènw caman bè tao lakèli siran, bellkukalan ye nyabònò an fò mali kònò, fò o kèra sebaabu ya ka lakelitaabàn bè bamanankan na, n'a tògò ye kibaru. sènkè cogow y'èlémana kosèbè.

nin bèe de b'a jira k'an b'a fè ka tò tògò la. an t'a fè ka ta kè fanw. nka olibi an tò ka ca.

faso denw jèli, ani u ka ganiya nyuman n'u ka cèsiri ka nyàsin faso jèli na, a dòròn de bè se k'an bè nègè la. kamite militarè b'a da nyini an bèe lajèlen fè.

n'i y'a mèn ka jamana, o kònò nègèw don, o tuma, n'a fènw jamanw bèna jènya juru la, o kònò ya ko jamana denw de bèna jagaya fanga la, u kèra u yèrè ta ye, n'u ye fèn o fèn fè ka nyàsin faso ka hèrè sòrò sira na, o de bè kè. o tuma, an k'an labèn ka 1972 san, sènènburu kalo tile 22 selfila in kunbèn.



cìké cogo nyuman de bè sòrò yiriwa

cìkèla min y'a ka sumansi furakè mè kalo la, ka dannì kè zuàn kalo la, ka kòrèsèbyènni ani nègèdon kè zuluya kalo la, o cìkèla in ka kan ka sòrò sènèfènw kòlòsili, u ladonni n'u furakèli de la sisan.

(a ye tèsèrt furakèli labò nyè 2 la.)

janto yèrè la...

kibaru nimòrò sabanan na, an y'aw ladònniya ko somìyè manà se, aw ka to ka niwakini kisè kelen ta tile o tile.

niwakini dun bè mun nyè ?

a bè nègè kisi sumà de ma ni sumà ya nègèdòròba min minè, o tigi bè niwakini kisè ta nin cogo la :

bana tìla fòlò n'a tile filanan : a bè kisè 2 ta sègènna, ka kisè 2 ta su fè, bana tile sabanan n'a naaninan : a bè kisè 2 ta sègènna, ka kisè 2 ta su fè, bana tile duurunan n'a wòorònan : a bè kisè kelen ta sègènna, ka kisè kelen ta su fè.

nyè 3 kibaru uli kalo 1972

kibaru kalanbagaw kuma yòrò.

genubantan nègèbòròkalandenw.

bellkukalan dìyara anw ka dugu nègèw bèe ye, an ye jamana kuninafoni caman ye kibaru kònò. o y'anw kunnawolo k'an sawa. an ka miiriya la, bellkukalan ni ye mali cìkèlaw ka hèrè de ye, an bè foli kà mali nyènègèw bèe lajèlen ye. an jigi ye aw de ye su ni tile bèe. anw kòni ye bellkukalan nafa ye. banya ani ganiya nyuman bà anw fè yan kelen ka la. èlè ma mali tao-o nyè. èlè ma juguw malala.

jatè:

genubantan bellkukalandenw, an y'anw ka lètèrè sòrò jènukan min b'a kònò, o y'anw nimisi wasa k'a d'a kan y'an jira an na, k'a ma bellkukalan falen fayi la. o ye banya ni ganiya nyuman min jira an na kelen ka o in na, o b'aw fa o la ka..bhè f... nyènègèw bèe tògò la.

banana

sanwa kònò ka ni y'ala lètèrè filanan ye ònè kunkanko kumaw kan. a ka jènukan kònò, a ka a b'a nyini nyènègèw fè, u k'u jija dèmèn in bè se ka kà sènkè minànw ye, minw bè se k'an bellma sènkèlaw ka sòrò yiriwa sènè duru bè minw kònò, ni cogo t'u bolo, sori mana dì o tiguw ma, u bè sènkèw kà fè k'a tò feere apamu ma. bèe lajèlen b'a dòn an ka jamana nafa fanbè bè sènè de la.

kolodugu kura.

ne bakari denbolo ka tò

ne bakari denbolo ka bè koladugu kura, n'a bè nyènè fè, n'bè san kelen kiberu san tòbòn nyini. ne ye bellkukalan daminè a ma mèn. o la so, ne b'a fè aw k'a fò araja la n'nènyègèmw bèe k'a mèn, n'a y'a sòrò n'ka sèbèni jèlen don. o tèmènnen kà n'bè faso nyènègèw bèe fò. bellkukalan daminèra anw fè yan sellnclnin kalo la. o y'a sòrò ... nyuman sèbèn. nka sisan n'bè se ka n'ka kiberuyaw sèbèn bemanankan na.

jatè:

bakari denbolo, an y'i ka lètèrè ye an y'a kalan fò k'a ban. a kènkan y'an wasa fana. nyènègèw b'i fa i ka cèsiri la.

mali denmisèniw ka 1972 san nyènajèba.

mali denmisènw ka senfila nyègèndan nyènajè min kèra bamakò k'a ta zuluya kalo tile 8 fò kono a bila a tile 18 la, 1972 san na, kunnafoni minw bèra o kònò, olu de fìlà nin ye :

kamanyagan

sikaso	kèra	fòlò	ye
moti	kèra	filanan	ye
gawo	kèra	sabanan	ye
segu	kèra	naaninan	ye
kayi	kèra	duurunan	ye
bamakòkèra		wòorònan	ye

dìbìkìdìdòn bnòw

segu	kèra	fòlò	ye
kayi	kèra	filanan	ye
gawo	kèra	sabanan	ye
moti	kèra	naaninan	ye
bamakòkèra		duurunan	ye
sikaso	kèra	wòorònan	ye

jìkadonkìlìdo

segu	kèra	fòlò	ye
gawo	kèra	filanan	ye
moti	kèra	sabanan	ye
sikaso	kèra	naaninan	ye
kayi	kèra	duurunan	ye
bamakòkèra		wòorònan	ye

segu denmisen jònulu de kèra fòlò ye a ka bèe bannen kò

dìbìkìdò

sikaso	kèra	fòlò	ye
segu	kèra	filanan	ye
moti	kèra	sabanan	ye
bamakòkèra		naaninan	ye
gawo	kèra	duurunan	ye
kayi	kèra	wòorònan	ye

farafinafòlòw

sikaso	kèra	fòlò	ye
segu	kèra	filanan	ye
moti	kèra	sabanan	ye
gawo	kèra	naaninan	ye
kayi	kèra	duurunan	ye
bamakòkèra		wòorònan	ye

nemanafòlòw

segu	kèra	fòlò	ye
bamakòkèra		filanan	ye
moti	kèra	sabanan	ye
kayi	kèra	naaninan	ye
sikaso	kèra	duurunan	ye
gawo	kèra	wòorònan	ye

dìbìkìdò ma

gawo	kèra	fòlò	ye
sikaso	kèra	filanan	ye
moti	kèra	sabanan	ye
segu	kèra	naaninan	ye
bamakò	kèra	duurunan	ye
kayi	kèra	wòorònan	ye

bololo baara

moti	kèra	fòlò	ye
kayi	kèra	filanan	ye
gawo	kèra	sabanan	ye
segu	kèra	naaninan	ye
bamakò	kèra	duurunan	ye
sikaso	kèra	wòorònan	ye

san 1660 nimòrò 8
dkutòburu kalo 1972 san

a bè bò mali kibaruba
ka yamaruya kònò

a òngò : dòrómè 4
b. p. : 34 - c. c. p. 0188
bamakò (mali)

kibaru

mali cikèlaw ka lakalitasèbèn

a ye 1972 san medayi kroupekaia sòrò pari unesco la

kibaru ye medayi sòrò unesco la

kibaru ye medayi sòrò unesco la. san o san, mògòkòròbakalan sinsili kama dinyè kònò, unesco bè piri fila do piri palhavi ani piri kroupskaia piri ninw bè di mògòw ma welima jòkulow ma, minw ye baara nyuman kè mògòkòròbakalan ka nyètaa kan.

nyinan, jamakulu min sigira unesco fè piriw konyè kama, o ye mali ni jamana walanwula wòrò de sugandi jamana bivalanwula ni duuru cè ma. medayi dira olu ma u ka baara nyuman kèsèn mògòkòròbakalan jira la. jamakulu in y'a jira ko mali cikèlaw ka lakalitasèbèn, n'o ya kibaru ye, o ka kan ka medayi sòrò, bawo a ye baara nafama ni baara cènyi kè ka mali balikukalan sinsi.

o la se, kibaru ye banya ni kunnawalo sòrò dinyè fan tan ni naani bèe kònò o ka kan ka lase aw kibarulasèlaw ma, ani kibarukalanbagaw ma, mali kònò ani mali kòkan.

nowanburu kalo tile 19 : hakili jaka bò don.

kobini 1968 san, nowanburu kalo tile 19, ni sòròdasiw ye fanga ta, o don kunbèn ye nyènajèbaa ye mali kònò, k'a d'a kan nyògòn min tun bè malidenw kan, o bò jòra. an k'an hakili jaka bò, k'a donbe seli k'a nyè ma.

nyènajèw banna, an k'an nyésin baara ma.

yèrèmahòrònya kunbèn don nyènajèw bèe banna a seli kèra nisòndiya, wasa ani kunnawalo ye, jamana nyèmògò, n'a ye peresidan musa traworè ye, ani kafow nyèmògòw ma mògò kelen ta kuma la. jamana kunkow, o hamiw n'a kuntilennaw fòra k'u yè.

min ka kan ka min kè, o fana fòra sisan, jerasisiw, dònw, dumuniw ani miniw bannen kè, mun tora ? miiri nyuman, hakili nyuman, ani baara nyuman bayo, olu dòròn de bè se ka jamana sòrò, a nafa n'a dawula banya.

nin ye togo jamana cikèlaw ka lakalitasèbèn ye unesco ni togo jamana nyèmògòw jòra k'a sabati, i n'a fò a ni mali jamana nyèmògòw y'a kè cogo min na kibaru ko la. sèbèn in nimòrò fòlò tòra sètanburu kalo tile 8, 1972 san, lama, n'o ya togo fasama dugu ye.

san 1660 nimòrò 10
desanburu kalo 1972 san

a bè bò mali kibaruba
ka yamaruya kònò

a òngò : dòrómè 4
b. p. : 34 - c. c. p. 0188
bamakò (mali)

kibaru

mali cikèlaw ka lakalitasèbèn

a ye 1972 san medayi kroupekaia sòrò pari unesco la

nyinan sènéfènw sannifaara konyè la

an ka dèmè don nyògòn na.

sènékélaw y'u ka baara bè ka ban. ji ko kòra cogo min na bèe y'o don. sòrò kòra cogo min na bèe y'o fa na don. n'ka, walasa malidenw bèe ka se ka balo sòrò a yè ma, fo aumanu sènékélaw, a sanhinjau n'u faara ka gaw bèe ka hakili ni miiri nyuman sòrò, baw, jamanafa ani mògò kelen nafa, o lu kajan nyènà na i n'a fo jègè jalan n'i bajt.

okutòburu kalo tile 30, jòkulu min ka kan ka nyinan sènéfènw sanni konyè nyanabò, o y'a ka tènsigi kè bamakò ministiriw ka se la. o konyè lahaleya la, an sera mali nafasòròsira ministiri ma k'a nyininka ministiri sidi kulubali bè ja kan.kimaw bè nyè 2 la

cikè lakalitasèbèn ladonni cogo kalan

unesco ye bonyè ani dannaya min da mali kan kibaru ko la nyinan, 1972 san kòsò, o tè se ka fè ka ban. a ye mali do fòlò sukandi cikèlaw ka lakalitasèbèn ko la martai kalo tèmènen na. a tilala ka medayi di kibaru ma sètanburu kalo tèmènen na. sisan, a ye mali yamaruya kalan dè kòli la, kalan min ayèrinwan bè farafina cikèlaw ka lakalitasèbèn yiriwalè a'u sinsinni ma.

kalan in dayèlènna bamakò desanburu kalo tile 9. a bènna tile tan de ma. cikèlaw ka lakalitasèbènw kuntigiw bòra bòuga, niveri, togo, gabòn, senegali, ani mali kòsò, ka na kalan in bè unesco ka cidon jànjàn yèrè ayana, n'o ye orolan ye.

a bòra kunnawolo ani daraja dan bèèye. o de kòsòn, malidenw bèe ka kan k'u jija ko kibaru sinsin walasa mali ka kunbèndòta ka t'a fè baliku kalan ko la.

amadu janyi bantò

that such co-ordination may have the most telling effect. We have seen that, assuming that the unit cost of providing literacy teaching for one farmer is 10,000 Malian francs, approximately 40 to 50 per cent of this sum was provided by UNDP while the Pilot Project was being implemented. This share will have to be provided by the Malian Government on completion of the project - which it is unable to do. Those responsible for Development Operations, however, have found functional literacy activities so effective that they have agreed to bear part of the cost. Until 1971, their contribution was sporadic, directed towards small-scale activities undertaken by certain Operations and implemented by the literacy teaching service. It will be provided systematically, however, as from July 1972, at least so far as Operation Groundnut and Operation Rice are concerned, literacy training becoming a component of these operations and being financed from the same sources - the Fonds français d'Aide et Coopération (FAC) in the case of Operation Groundnut and the European Development Fund (EDF) in that of Operation Rice. Those responsible for the Operations and their external sources of financing have calculated that the low cost of the functional training of farmers would soon be offset by the increased efficiency that can be expected as a result of this training.

The integration of a functional literacy component in a Development Operation so as to increase the yield on the investments which the Operation represents is of sufficient interest to have attracted the attention of those responsible for other Development Operations in Mali, who are at present attempting to obtain financial support for possible functional literacy components.

Influence on the school system. If it is remembered that only one out of every five Malian children can attend school and that the present cost of the school system is such that there is no reason to believe that this proportion will change significantly in the near future, it will be understood that the Malian authorities are very anxious to improve their educational system so that it can satisfy the profound desire for instruction and progress shown by the people. The first reform was introduced in 1962, for the purpose of bringing education in rural areas into line with other forms of education, as regards both availability and content. As a result of this reform the proportion of children who can attend school, particularly in rural areas, has already been doubled, but as yet the content of education has not been changed so as to take account of the concerns of the rural sector, although it accounts for 90 per cent of the population in Mali. Thus functional literacy appeared to provide a system of education which was less costly, more directly geared to the life of the country, and containing certain features which might lead to new reforms in the standard type of education. At the same time, because functional literacy work has been so widely developed among farmers and because it is based upon the use of national languages it is feared that there will be a split between two sectors of the population: children who have been educated in French but who have increasing difficulty in finding their place in the working world, and young adult farmers who can read and write in their native languages only.

The Ministry of Education is therefore trying to find some way of enabling the best aspects of functional literacy teaching to be applied to the Malian school system as a whole:

use of the national languages, which enables several years to be saved in teaching the techniques of reading, writing and arithmetic;

diversification of curricula in accordance with the principal concerns of the sectors for which they are intended, so as to avoid divergence between the content of education and conditions of life;

involvement of groups of participants in the formulation of programmes and in decisions relating to the operation of the centres, so as to encourage the participation of those concerned in the financing of the system and in this way to reduce the cost of the public authorities.

The instrument used for these investigations might be a Malian Institute of Functional Literacy and Applied Linguistics whose establishment is under consideration and which could be responsible for making a more detailed analysis of the achievements of the Service and developing research and experimentation in linguistics and teaching, while continuing the essential educational activities of the Functional Literacy Service.

In conclusion, therefore, it may be said, without fear of erring on the side of excessive optimism, that functional literacy teaching has gained acceptance in Mali and that it provides the Malian authorities with a practical method for training the illiterate in rural and urban areas, and so promoting the economic, social and cultural development of the country.

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